

# **EXHIBIT 16**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION"

GOOGLE LLC,  
  
Plaintiff and Counter-defendant,  
  
v.  
  
SONOS, INC.,  
  
Defendant and Counter-claimant.

Case No. 3:20-cv-06754-WHA  
Related to Case No. 3:21-cv-07559-WHA

**REBUTTAL EXPERT REPORT OF  
DR. KEVIN C. ALMEROOTH**

**D. Bose Lifestyle 50 System**

**1. Introduction of Dr. Schonfeld's "Bose Lifestyle" Reference**

348. In his Opening Report, Dr. Schonfeld relies on an alleged prior art system called the "Bose Lifestyle 50 System," which Dr. Schonfeld refers to as "Bose Lifestyle" for short. *See* Schonfeld Op. Report at ¶855.

349. Although unclear, Dr. Schonfeld appears to be asserting that the Bose Lifestyle 50 System is system prior art that "was publicly available, on sale, offered for sale, and described in printed publications both before the critical date (i.e., prior to September 12, 2005), before the alleged conception date (i.e., prior to December 21, 2005), and prior to the patent filing date on September 12, 2006." *Id.* Despite appearing to rely on the Bose Lifestyle 50 System as system prior art, Dr. Schonfeld does not provide any analysis or testing of an actual Bose Lifestyle 50 System.

350. In asserting that the Bose Lifestyle 50 System invalidates claim 1 of the of the '885 Patent, Dr. Schonfeld relies on various disclosures related to different Bose products, some of which have no relation to and are incompatible with the actual Bose Lifestyle 50 System. These various Bose products include:

- Bose Lifestyle 50 System;
- Bose Lifestyle SA-2 and SA-3 Amplifiers and their ability to be added to a Bose link media center of a Bose Lifestyle® 18 series II, 28 series II, 38 or 48 home entertainment system;
- Bose link communication protocol; and
- Bose FreeSpace EF Series II Business Music System.

Below I provide a summary of each of these Bose products.

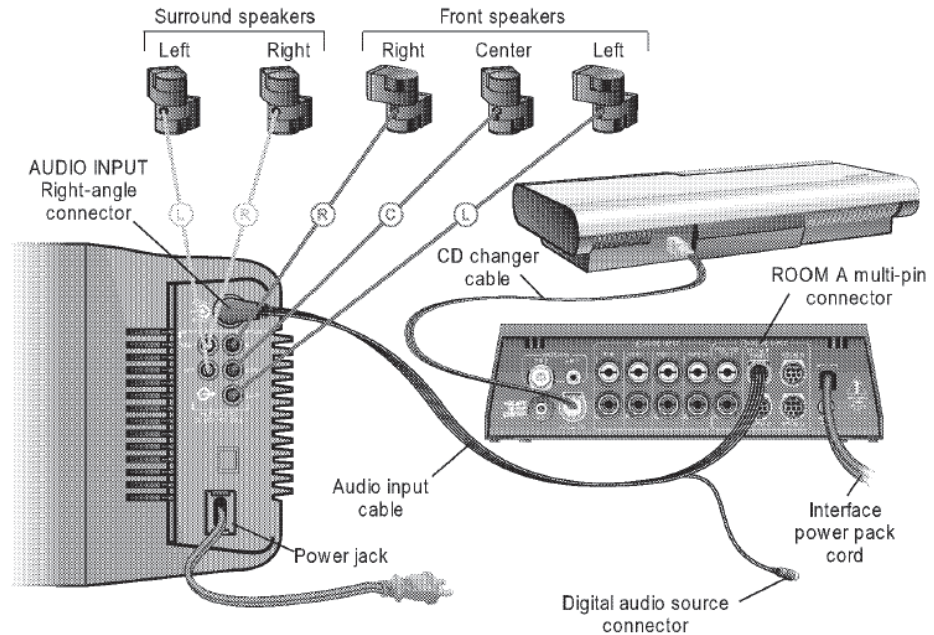
**i. Overview of the Bose Lifestyle 50 System**

351. As described in the "Bose Lifestyle 50 System Owner's Guide" (referred to herein as "Bose Lifestyle 50 Guide"), dated October 17, 2001, the Bose Lifestyle 50 System includes a "multi-room interface," one or more "Acoustimass modules" (or other Bose powered speakers) that are each wired to the Multi-Room Interface via respective "audio input cables," and "Jewel

Cube speakers” that are wired to the “Acoustimass module” via “speaker cables.” See BOSE\_SUB-0000001-55 at 7, 11-12. An example Bose Lifestyle 50 System configuration with a single Acoustimass module is shown in the figure below:

**Figure 8**

*Speakers, CD changer, and multi-room interface connections*



BOSE\_SUB-0000001-55 at 12.

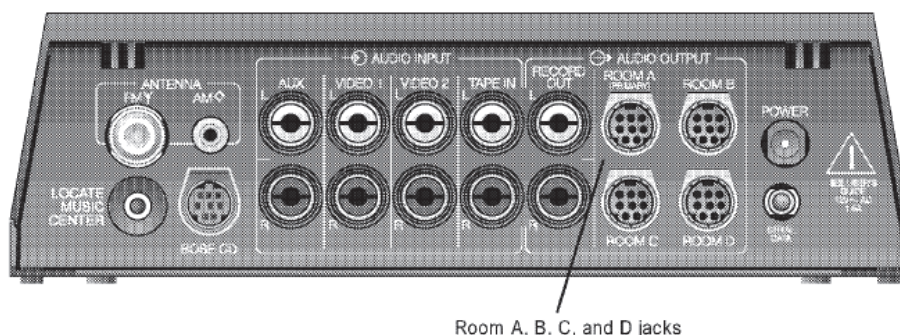
352. The Bose Lifestyle 50 Guide also discloses that the centralized Multi-Room Interface includes various audio inputs to connect various audio sources (e.g., FM, AM, CD, DVD, VCR, etc.). See, e.g., BOSE\_SUB-0000001-55 at 14-15; see also *id.* at 10 (“Place the multi-room interface close enough to the sound sources (TV, VCR, DVD, etc.) to allow for cable length.”). In this respect, the “multi-room interface” of the Bose Lifestyle 50 System provides audio sources “locally” or from a “centralized location,” similar to the conventional audio systems disclosed in the Background of the ’966 Patent. See, e.g., ’966 Patent at 1:46-58.

353. The “multi-room interface” also comprises four different audio output connectors labeled ROOM A-D to connect up to four Acoustimass modules in four different rooms. See, e.g., BOSE\_SUB-0000001-55 at 42. In this regard, I understand that each connected Acoustimass module can receive its own respective audio signal from a given one of the four audio outputs of the Multi-Room Interface. The Bose Lifestyle 50 Guide also discloses that the connected

Acoustimass modules can each play a different audio source or can “share” an audio source depending on the desired configuration and depending on the number of sources connected to the audio input connectors of the Multi-Room Interface. *Id.* at 43-44. The input and output connectors of the Multi-Room Interface are illustrated in the figure below:

**Figure 47**

ROOM jacks on the multi-room interface

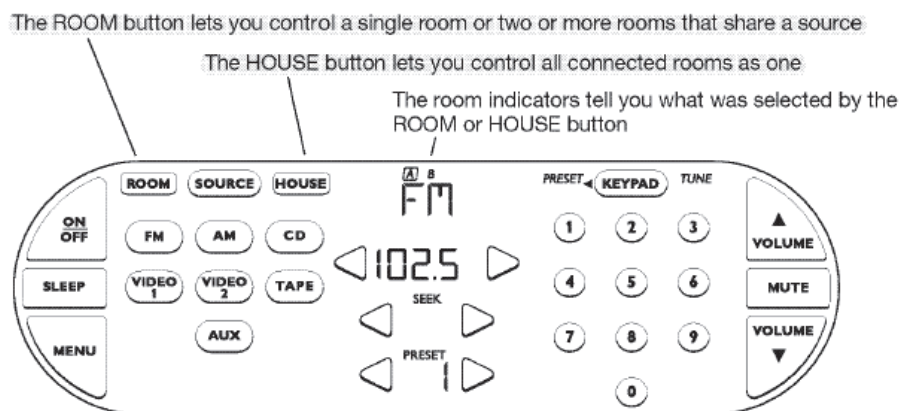


*Id.* at 42.

354. To help facilitate control of the Bose Lifestyle 50 System, a “Personal music center” is provided. *Id.* at 43. The Personal Music Center is a portable handheld device with a touch-screen display that provides information about the Bose Lifestyle 50 System and enables a user to select audio sources and control playback of audio sources on Acoustimass modules in one or more rooms. *Id.* at 43-45. Below is a figure of the Personal Music Center from the Bose Lifestyle 50 Guide:

**Figure 48**

Example display for a two-room system



*Id.* at 320.

355. In order to control the Bose Lifestyle 50 System, the Personal Music Center must “set up a radio frequency link” to establish communications with the centralized Multi-Room Interface. *Id.* at 19 (“When batteries are first installed in the Personal music center; it sets up a

1 radio-frequency link with the closest multi-room interface.... If the Personal music center  
2 continuously displays "NO RESPONSE," you need to try to establish its link with the multi-room  
3 interface again.”), 45 (“To add a new Personal music center to your system, follow the setup  
4 instructions on page 17. Be sure to install the batteries and turn it on for the first time close to the  
5 multi-room interface to allow the new Personal music center to set up a radio frequency link with  
6 your system. If the multi-room interface is not plugged in or the Personal music center is out of  
7 range, the display indicates NO RESPONSE.”).

8 356. The Personal Music Center and the “multi-room interface” communicate using a  
9 proprietary radio frequency communication protocol that was specifically developed for the Bose  
10 Lifestyle 50 System and that is “not compatible” with protocols used in other Bose systems. *See*  
11 BOSE\_SUB-0000663-683 at 666 (“The communication protocol used in the Lifestyle® 50 system  
12 is not compatible with the protocol currently used in other Lifestyle® systems.”)

13 357. Notably, there is no disclosure in the Bose Lifestyle 50 Guide or any other evidence  
14 I have seen that the Personal Music Center can communicate with Acoustimass modules and/or  
15 Jewel Cube speakers using Bose’s propriety communication protocol or otherwise. Instead, the  
16 evidence I have seen shows that Personal Music Center uses Bose’s propriety communication  
17 protocol to communicate only with the Multi-Room Interface, which in turn distributes audio to  
18 the Acoustimass modules. *See* BOSE\_SUB-0000001-55 at 43 (“When batteries are first installed  
19 in the [Personal] music center; it sets up a radio-frequency link with the closest multi-room  
20 interface.”).

21 358. The Bose Lifestyle 50 Guide also discloses that “[i]f two or more rooms are  
22 connected to [the Bose Lifestyle 50 System], the Personal Music Center displays ROOM and  
23 HOUSE buttons, and room indicators (A, B, C, and/or D).” *See* BOSE\_SUB-0000001-55 at 43.  
24 These ROOM and HOUSE buttons enable a user to configure the Multi-Room Interface to  
25 distribute audio from different audio sources to different rooms or to distribute the same audio  
26 from the same audio source to multiple rooms at the same time. Specifically, the Bose Lifestyle  
27 50 Guide discloses that “[t]he ROOM button allows you to select any connected room and control  
28 any sound source you want to hear in that room.” *Id.* at 44. The Bose Lifestyle 50 Guide also



provides the following instructions for how to use the ROOM button to set up a “shared source” in multiple rooms:

**Setting up a shared source**

Now, let’s say the system is already on and you want to play the FM radio in rooms A and B:

1. Wake up the Personal music center.
2. Press the ROOM button until the room indicator **A** is displayed. Press the FM source button and adjust the volume to the desired level for room A.
3. Press the ROOM button again to select room **B**. Press the FM source button and adjust the volume to the desired level for room B. Now, the indicators **A B** are displayed.
4. Press the ROOM button again. The indicators **A B** appear on the display indicating that you can control these two rooms together. Any button command given now (SOURCE, VOLUME, MUTE, ON/OFF, SLEEP) is applied to both rooms.

*Id.*

359. The Bose Lifestyle 50 Guide discloses that the HOUSE button enables a user to “link all rooms together and control them as one,” such that “[a]ny button pressed after that (any source button, VOLUME, MUTE, or SLEEP) affects every room”:

**Using the HOUSE button**

Using the HOUSE button, you can link all rooms together and control them as one. When you press the HOUSE button, an empty box indicator is displayed for each connected room. Any button pressed after that (any source button, VOLUME, MUTE, or SLEEP) affects every room. When you are done listening you can press OFF to turn off the entire system.

- ’ **Note:** If you do not press any additional buttons after pressing HOUSE, pressing HOUSE again cancels HOUSE mode.

*Id.* at 45. In this way, a user can use the HOUSE button followed by a source button to set up a shared source for all rooms A-D in their home.

360. Notably, neither the Bose Lifestyle 50 Guide nor any of the other evidence I have reviewed discloses anything about what specific information is transmitted from the Personal Music Center to the Multi-Room Interface as a result of “link[ing]” rooms together and setting up a “shared source.” However, based on the evidence I have reviewed, it appears that no information would be sent from the Personal Music Center to the Multi-Room Interface until at least the user selects the source at which point the Personal Music Center would send some sort of information to the Multi-Room Interface to cause the Multi-Room Interface to configure itself to distribute

1 audio from the selected audio source to the selected room(s). *See, e.g.*, BOSE\_SUB-0000001-55  
2 at 6 (“The Bose multi-room interface, with four independent audio outputs that allow you to enjoy  
3 Bose sound throughout your home.”), 12 (illustrating a Bose Lifestyle 50 System configuration  
4 with a CD player and an Acoustimass module connected the Multi-Room Interface), 17  
5 (illustrating various audio sources connected to Multi-Room Interface via audio input cables), 19  
6 (“When batteries are first installed in the music center; it sets up a radio-frequency link with the  
7 closest multi-room interface.”), 44-45 (explaining how to use ROOM and HOUSE buttons to set  
8 up an audio source for one or more rooms).

9         361. Based on my review of the Bose Lifestyle 50 Guide, it is my opinion that the Bose  
10 Lifestyle 50 System is a type of conventional audio system with a centralized Multi-Room  
11 Interface that is hard-wired to one or more Acoustimass modules so that audio could be distributed  
12 from the centralized Multi-Room Interface to the “Acoustimass module(s)” and then to the wired  
13 Jewel cube Speakers. *See* BOSE\_SUB-0000001-55 at 11-12. A POSITA would not consider the  
14 Multi-Room Interface and the Acoustimass modules to be operating on a data network because the  
15 hard-wired connection described in the Bose Lifestyle 50 Guide is not a medium that interconnects  
16 devices, enabling them to send digital data packets to and receive digital data packets from each  
17 other. In contrast, the ’966 Patent is specifically directed to *networked* multimedia systems that  
18 operate on local and wide area *data networks*, which are distinctly different from conventional  
19 multimedia systems such as the Bose Lifestyle 50 System. *Compare* ’966 Patent at 4:39-5:15, Fig.  
20 1 *with* 1:46-2:16.

21         362. Likewise, applying Sonos’s constructions of “zone player” and “data network,”  
22 neither a Jewel Cube speaker, nor an Acoustimass module, nor an SA-2 or SA-3 amplifier is a  
23 “first zone player” because these devices (i) are not data network devices that can send digital data  
24 packets to and receive digital data packets from another device and (ii) are not capable of  
25 performing any digital data processing on the audio before outputting it. Instead, the evidence I  
26 have reviewed shows that a Jewel Cube speaker merely receives an audio signal over an audio  
27 cable from an Acoustimass module or SA-2 or SA-3 amplifier and outputs audio, and that an  
28 Acoustimass module or SA-2 or SA-3 amplifier receives an audio signal over an audio cable from

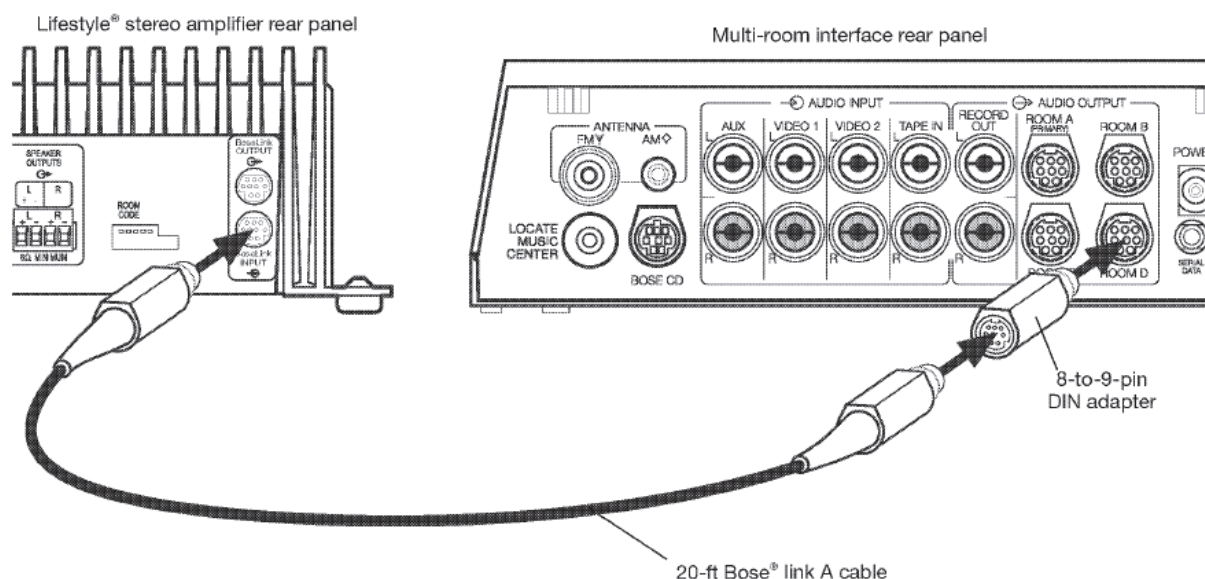


the Multi-Room Interface of the Bose Lifestyle 50 system and outputs audio. *See* BOSE\_SUB-0000001-55 at 7, 11-12, 14-15, 42; BOSE\_SUB-0000361-448 at 376. There is no evidence of two-way digital data packet communication between a Jewel Cube speaker and an Acoustimass module or SA-2 or SA-3 amplifier, or between an Acoustimass module or SA-2 or SA-3 amplifier and the Multi-Room Interface of the Bose Lifestyle 50 system. There is also no evidence of any communication whatsoever between Jewel Cube speakers or between Acoustimass modules or SA-2 or SA-3 amplifiers when these products are used with a Multi-Room Interface of the Bose Lifestyle 50 system, as Dr. Schonfeld appears to be asserting. And lastly, there is no evidence that these devices perform any digital data processing before outputting the audio.

## ii. Overview of the Bose Lifestyle SA-2 and SA-3 Stereo Amplifiers

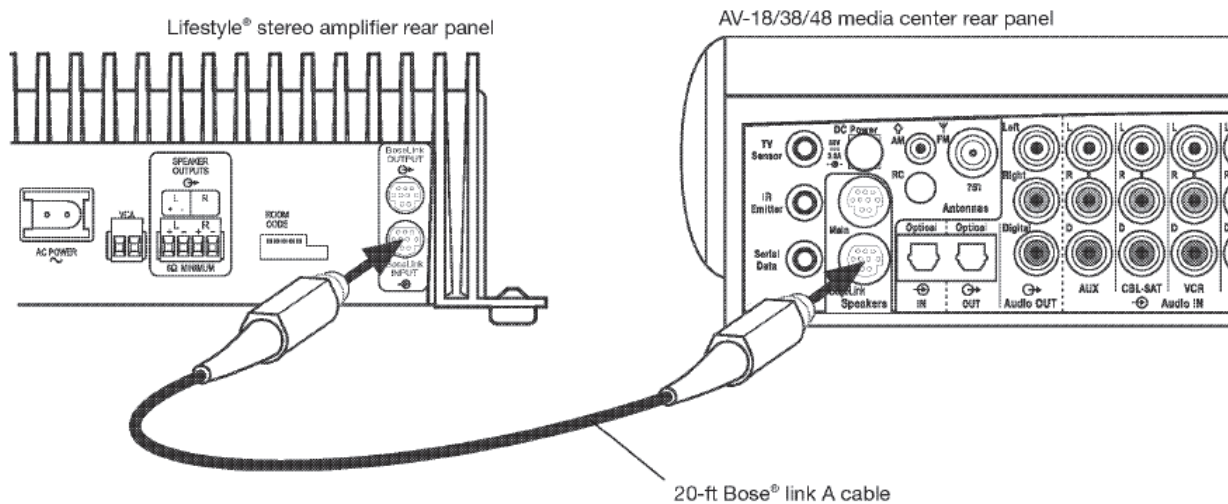
363. As described in “The Bose Lifestyle SA-2 and SA-3 Stereo Amplifier Owner’s Guide” (“SA-2 and SA-3 Owner’s Guide”), dated 2004, the Bose SA-2 and SA-3 stereo amplifiers can be used with certain Bose Lifestyle systems to “expand” such systems by adding non-powered speakers that can be connected to the SA-2 and SA-3 amplifiers via speaker wire. *See* BOSE\_SUB-0000361-448 at 366-369, 376.

364. Although the Bose Lifestyle 50 System is not expressly referenced in the SA-2 and SA-3 Owner’s Guide, it does appear that SA-2 and SA-3 amplifiers can be connected to the Multi-Room Interface of a Bose Lifestyle 50 System, as shown in the following image:



See BOSE\_SUB-0000361-448 at 376. However, as shown, unlike an SA-2 or SA-3 amplifier, the Multi-Room Interface of the Bose Lifestyle 50 System does not have a “Bose link” connector so an “8-to-9-pin DIN adapter must be used in order to connect an SA-2 or SA-3 amplifier to the Bose Lifestyle 50 System using the “Bose link A cable” that comes with the SA-2 or SA-3 amplifier. In this regard, an SA-2 or SA-3 amplifier could be connected to the audio output connector for ROOM B, C, or D. *Id.* (“Insert the 8-to-9-pin adapter into one of the unused ROOM output connectors (B, C, or D) on the rear of the multi-room interface....”). Thereafter, I understand that the Personal Music Center could be used to control the SA-2 or SA-3 amplifier via Multi-Room Interface, as I explained above in connection with the Bose Lifestyle 50 System. *Id.* at 377. As one exemplary configuration, an Acoustimass module could be connected to the ROOM A output connector while an SA-2 or SA-3 amplifier could be connected to each of the ROOM B-D output connectors. In this arrangement, it appears that the SA-2/SA-3 amplifiers would operate in the Bose Lifestyle 50 system as if they were another Acoustimass module.

365. Alternatively, the SA-2 and SA-3 amplifiers can be connected to other newer Bose Lifestyle systems that do have a Bose link connector and in such a configuration no adapter is needed, as shown below:



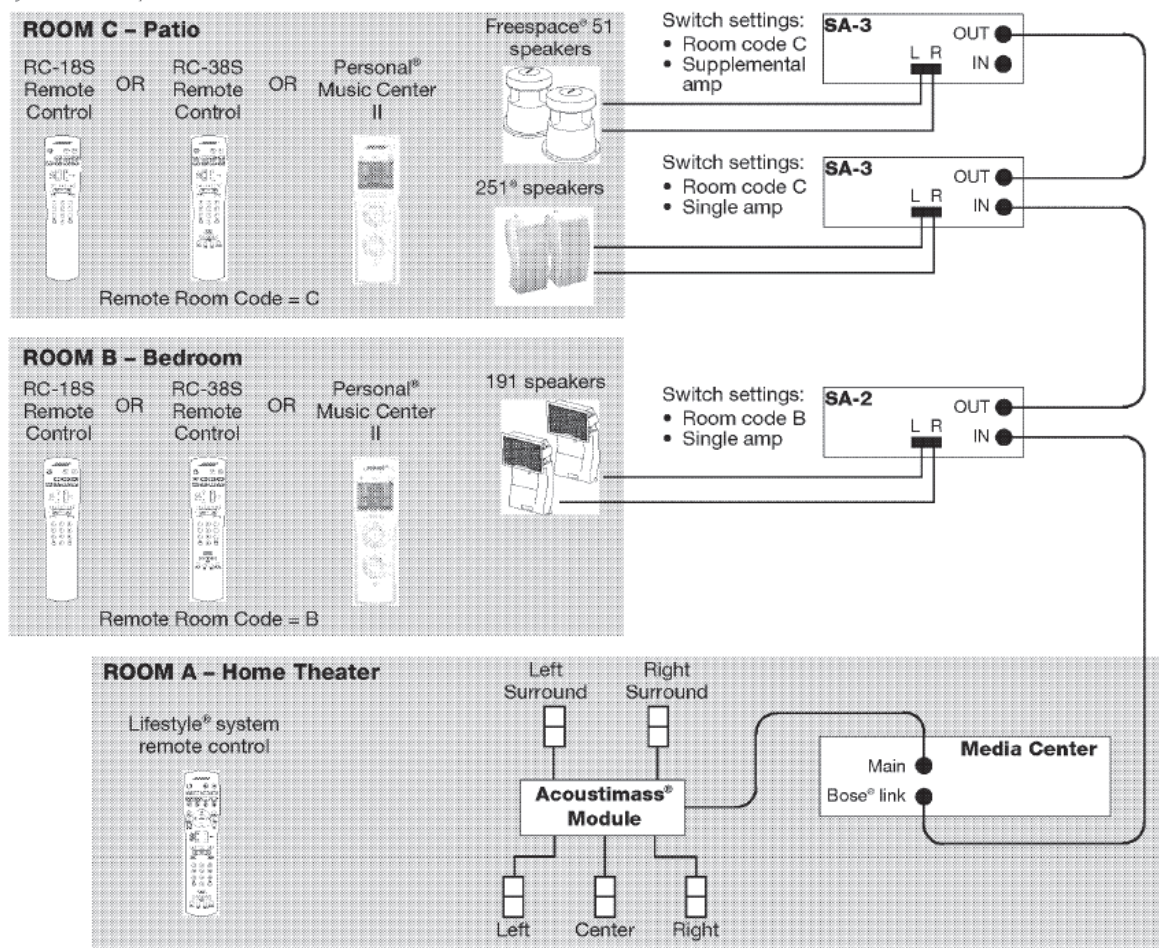
*Id.* at 372.

1           366. For these newer Bose Lifestyle systems, I understand that there is only a single  
2 Bose link connector on the centralized Bose link enabled media center and thus only a single SA-  
3 2 or SA-3 amplifier can be connected directly to the centralized media center for the Bose Lifestyle  
4 system. *Id.* Moreover, in such a configuration, “[f]or the Lifestyle® stereo amplifier to work  
5 properly with your home entertainment system, the expansion protocol menu item must be set to  
6 Bose® link.” *Id.* at 373.

7           367. As explained in the “Setup guidelines for additional rooms” section of the SA-2  
8 and SA-3 Owner’s Guide, if a user wishes to install one or more additional SA-2 or SA-3 amplifiers  
9 in other rooms of their home, this can be done through a series of Bose link connections, as shown  
10 below:

**Figure 18**

Sample installation of  
 Lifestyle® stereo amplifiers



*Id.* at 384.

368. Notably, the “Setup guidelines for additional rooms” section of the SA-2 and SA-3 Owner’s Guide states that it only applies to “a Lifestyle® 18 series II, 28 series II, 38 or 48 home entertainment system” – not a Bose Lifestyle 50 System. *Id.* Additionally, the only compatible controllers shown for these “additional rooms” are the RC-18S, RC-38S, and Personal Music Center II – not the Personal Music Center that comes with the Bose Lifestyle 50 System. Moreover, in such a configuration with “additional rooms,” a separate remote must be dedicated to each room, which is done by setting the room switches on the remote control and the room switches on the SA-2 or SA-3 amplifier to match each other. *Id.* at 384-386 (“Remote controls for



1 other rooms must be set to the same house code as the main room remote, but each remote must  
2 be set to a different room code. ... The Lifestyle® amplifier and its remote control must be set to  
3 the same room code.”). In this regard, it is my understanding that, unlike the Personal Music  
4 Center of the Bose Lifestyle 50 System, which allowed for the control of multiple rooms connected  
5 to the Multi-Room Interface, the dedicated remote controls used with a Bose link configuration of  
6 “a Lifestyle® 18 series II, 28 series II, 38 or 48 home entertainment system” could only control a  
7 single room at a time.

8 **iii. Overview of the Bose Link Communication Protocol**

9 369. As described in the undated, internal Bose document titled “Understanding Bose  
10 link,” “Bose link is a communication protocol” and “[t]o communicate there must be at least two  
11 participants that speak the same language.” BOSE\_SUB-0000594-601 at 595. As also explained:  
12 “For a Bose link setup to work the system must include a Bose link enabled media center (a  
13 controller), a Bose link expansion product, and an expansion remote control. Both the expansion  
14 product and the remote must be configured to operate on the same room.” *Id.* It is my  
15 understanding that Bose’s SA-2 and SA-3 amplifiers are Bose link expansion products. *Id.* at 601;  
16 BOSE\_SUB-0000361-448 at 376. However, per the “Understanding Bose link” document, an SA-  
17 2 or SA-3 amplifier would only use the Bose link communication protocol if it was connected to  
18 a Bose link enabled media center and controlled by an expansion remote control.

19 370. As also explained in the “Understanding Bose link” document, the Bose link  
20 communication protocol is only used to transmit certain types of information between Bose link  
21 enabled devices:

22  
23 A Bose link connection is essentially a conversation between the media center and  
24 the expansion device. The media center sends on/off, volume and source change  
25 commands along with audio to the expansion product. The expansion product  
26 responds by sending information back to the media center to let it know that it is  
27 still on (or off) and in the same room. This information exchange occurs each time  
28 a power or source change command is issued by the expansion remote.

When the media center receives an ON command from an expansion remote the  
system turns on and checks for any Bose link products that might be connected, but

1 it will only look for Bose link products that are assigned to the same room as the  
2 remote.

3 If the media center receives a command from a remote configured for room B, for  
4 example, the media center calls out to other Bose link products which might be  
5 assigned to room B. If a connected expansion product is assigned to room B it will  
6 respond to the media center and a Bose link connection will be made. The media  
7 center will not acknowledge a response from anything not assigned to room B.

8 The media center will not acknowledge more than one response from the same  
9 room, either. As with any productive conversation, there can only be one person  
10 speaking at a time. If more than one product is assigned to room B the media center  
11 won't know which one to listen to. If the media center can't understand the response  
12 from the expansion products, or if there is no response at all, the media center will  
13 turn itself off and the Bose link connection will not be successful.

14 BOSE\_SUB-0000594-601 at 595-596. In this regard, I understand that if a user wanted to turn on  
15 multiple Bose link expansion products in different rooms of their home using the Bose link  
16 communication protocol, the user would have to press the power on button on a dedicated  
17 expansion remote control for each room, which would then cause the Bose link enabled media  
18 center to check for a Bose link enabled expansion product assigned to that room and, if one is  
19 found, a Bose link connection would be made. I have not seen any evidence that the Bose link  
20 communication protocol can be used to turn on multiple Bose link expansion products in different  
21 rooms via a single remote control.

22 371. Notably, there is no disclosure in the “Understanding Bose link” of a Bose  
23 expansion remote control transmitting information directly to a Bose link enabled expansion  
24 product. Instead, based on the materials I have reviewed, a Bose expansion remote control  
25 transmits information to a Bose link enabled media center, which in turn transmits information to  
26 a Bose link enabled expansion product. *See, e.g.*, BOSE\_SUB-0000594-601 at 595-597.

27 372. The “Understanding Bose link” document also explains how “A Bose link enabled  
28 media center is also capable of managing two separate sources at the same time” using two  
different audio streams, namely, stream 1 and stream 2. *Id.* at 597. While “[t]he main room, or  
room A, can only operate on stream 1,” “any of the expansion rooms can be configured to operate  
on either stream 1 or stream 2.” *Id.* The following example is also provided:



1 If an expansion remote configured for stream 1 sends an ON command to the media  
2 center, the media center will activate the pins that carry stream 1 information. The  
3 media center will also call out to any Bose link product set to the same room code  
4 as the remote. If the media center gets an answer it can understand, it will respond  
5 by telling the expansion product to turn on and listen to its stream 1 inputs. If the  
6 media center does not get a response from an expansion product set to the same  
7 room as the remote it will simply turn itself off.

8 *Id.*

9 373. In this regard, I understand that the stream for each Bose link enabled expansion  
10 product is set at the dedicated expansion remote control for the room in which that expansion  
11 product is located. Accordingly, if a user wanted to listen to stream 1 in Room B, the user could  
12 set the dedicated Room B expansion remote to stream 1 and then use that dedicated Room B  
13 expansion remote to turn on the Bose link enabled expansion product in Room B and thereafter  
14 control playback of stream 1 on the Bose link enabled expansion product in Room B. To listen to  
15 that same stream 1 in a different room, such as Room C, the user could set the dedicated Room C  
16 expansion remote to stream 1 and then use that dedicated Room C expansion remote to turn on the  
17 Bose link enabled expansion product in Room B and thereafter control playback of stream 1 on  
18 the Bose link enabled expansion product in Room C.

19 374. Based on the materials I reviewed, it is my opinion that the Bose link  
20 communication protocol was not utilized by or compatible with the Bose Lifestyle 50 System,  
21 including the Multi-Room Interface and the Personal media center. My opinion is supported by  
22 the fact that the Bose Lifestyle 50 Guide is dated October 17, 2001 while the first reference I have  
23 seen to the Bose link communication protocol is in the 2004 SA-2 and SA-3 Owner's Guide. *See*  
24 BOSE\_SUB-0000361-448 at 368. In other words, the Bose link communication protocol appears  
25 to have been developed years after the Bose Lifestyle 50 System. Additionally, the  
26 "Understanding Bose link" document does not reference the Bose Lifestyle 50 System and vice  
27 versa.

28 375. My opinion that the Bose link communication protocol was not utilized by or  
compatible with the Bose Lifestyle 50 System is also supported by the fact that the "Setup  
guidelines for additional rooms" section of the SA-2 and SA-3 Owner's Guide describes how to

1 use the Bose link technology to add up to 14 rooms to a Bose Lifestyle system, but the only Bose  
2 Lifestyle systems that are listed are the “Lifestyle® 18 series II, 28 series II, 38 or 48 home  
3 entertainment system[s]” – not a Bose Lifestyle 50 System. *See* BOSE\_SUB-0000361-448 at 384;  
4 *see also* BOSE\_SUB-0000594-601 at 595 (explaining how the Bose link technology allows the  
5 addition of 14 rooms “B-O” using “Bose link expansion product[s]”). Additionally, the only  
6 compatible expansion remote controls shown for these “additional rooms” are the RC-18S, RC-  
7 38S, and Personal Music Center II – not the Personal Music Center that comes with the Bose  
8 Lifestyle 50 System. This makes sense because, unlike the Bose Lifestyle 50 System, which  
9 appears to have been developed in 2001 and discontinued in 2003 (*see* BOSE\_SUB-0000001-55;  
10 SONOS-SVG2-00226910  
11 ([https://www.bose.com/en\\_us/support/products/bose\\_home\\_theater\\_support/bose\\_5\\_speaker\\_ho](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls50.html)  
12 [me\\_theater\\_support/ls50.html](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls50.html))), the “Lifestyle® 18 series II, 28 series II, 38 or 48 home  
13 entertainment system[s]” appear to have all been developed in 2004 around the time that the Bose  
14 link communication protocol appears to have been developed (*see* SONOS-SVG2-00226906  
15 ([https://www.bose.com/en\\_us/support/products/bose\\_home\\_theater\\_support/bose\\_5\\_speaker\\_ho](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls18_series2.html)  
16 [me\\_theater\\_support/ls18\\_series2.html](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls18_series2.html)); SONOS-SVG2-00226907  
17 ([https://www.bose.com/en\\_us/support/products/bose\\_home\\_theater\\_support/bose\\_5\\_speaker\\_ho](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls28_series2.html)  
18 [me\\_theater\\_support/ls28\\_series2.html](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls28_series2.html)); SONOS-SVG2-00226908  
19 ([https://www.bose.com/en\\_us/support/products/bose\\_home\\_theater\\_support/bose\\_5\\_speaker\\_ho](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls38_series1.html)  
20 [me\\_theater\\_support/ls38\\_series1.html](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls38_series1.html)); SONOS-SVG2-00226909  
21 ([https://www.bose.com/en\\_us/support/products/bose\\_home\\_theater\\_support/bose\\_5\\_speaker\\_ho](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls48_series1.html)  
22 [me\\_theater\\_support/ls48\\_series1.html](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls48_series1.html))).

23 376. My opinion that the Bose link communication protocol was not utilized by or  
24 compatible with the Bose Lifestyle 50 System is further supported by the fact that the Multi-Room  
25 Interface of the Bose Lifestyle 50 System does not have a Bose link connector and thus a special  
26 “8-to-9-pin DIN adapter” must be used to connect a Bose link expansion product like an SA-2 or  
27 SA-3 amplifier to the Multi-Room Interface of the Bose Lifestyle 50 System using a Bose link  
28 cable. In my opinion, when the “8-to-9-pin DIN adapter” is used to connect an SA-2 or SA-3

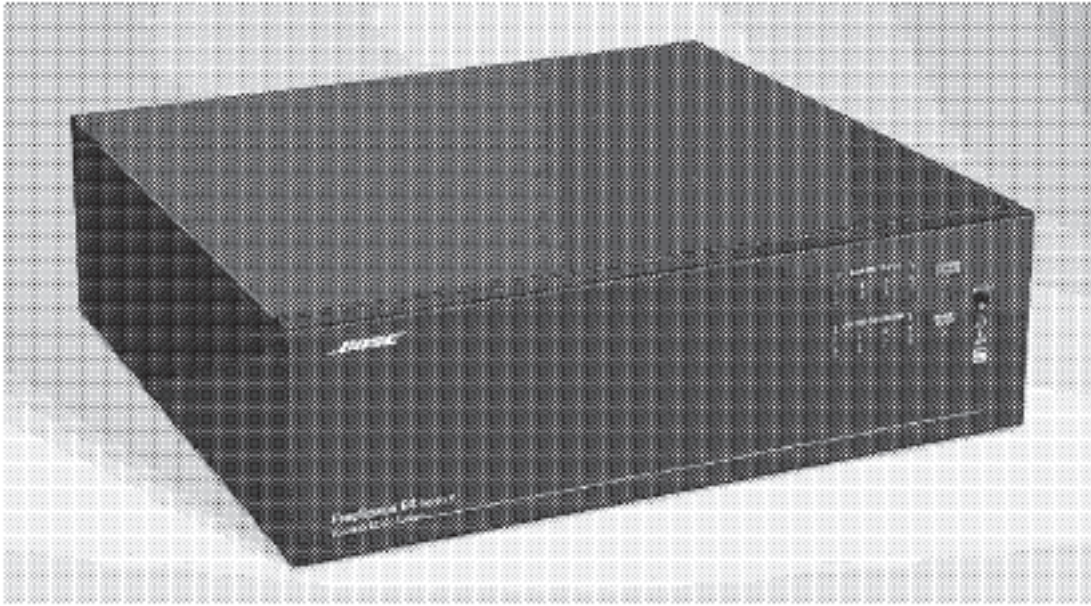
1 amplifier to the Multi-Room Interface, the SA-2 or SA-3 amplifier would not be able to  
2 communicate with the Multi-Room Interface using the Bose link communication protocol because  
3 I have seen no evidence that the Multi-Room Interface is a Bose link enabled media center.  
4 Instead, it is my opinion that the SA-2 or SA-3 amplifier would operate like the Acoustimass  
5 module of the Bose Lifestyle 50 System. Notably, I have not seen any evidence that the Multi-  
6 Room Interface of the Bose Lifestyle 50 System could be updated to operate in accordance the  
7 Bose link communication protocol.

8 377. My opinion that the Bose link communication protocol was not utilized by or  
9 compatible with the Bose Lifestyle 50 System is further supported by the fact that the Personal  
10 Music Center and the “multi-room interface” communicate using a proprietary radio frequency  
11 communication protocol that was specifically developed for the Bose Lifestyle 50 System and that  
12 is “not compatible” with protocols used in other Bose systems. *See* BOSE\_SUB-0000663-683 at  
13 666 (“The communication protocol used in the Lifestyle® 50 system is not compatible with the  
14 protocol currently used in other Lifestyle® systems.”).

15 **iv. Overview of the Bose FreeSpace E4 Series II Business Music**  
16 **System**

17 378. According to the “Bose FreeSpace E4 Series II Business Music System Owner’s  
18 Guide” (“Bose Freespace Owner’s Guide”) dated July 10, 2004, Bose FreeSpace “is an integrated  
19 four channel digital signal processor and 400-watt power amplifier for 70/1 DOV business music  
20 applications” that “provides all of the processing and control features required for one-to-four zone  
21 business music applications” in a “single chassis.” BOSE\_SUB-0000062-136 at 74. The Bose  
22 FreeSpace E4 product “allow[s] for an input source to be routed to any of the four amplifier  
23 outputs,” which allows for audio distribution for up to four different “zones.” *Id.* As shown and  
24 described in the Bose Freespace Owner’s Guide, “[s]peaker systems in up to four zones can be  
25 connected to the ZONE OUT amplifier outputs” using “the speaker cable from each zone.” *Id.* at  
26 93. I have not seen any evidence that the four individual “zones” can be combined and/or have  
27 any overlapping speaker systems. To the contrary, the Bose FreeSpace Guide indicates that up to  
28 four different speaker systems can be hardwired to the four different “zone” outputs on the

1 centralized Bose FreeSpace product thereby prohibiting any overlap. *Id.* A picture of the Bose  
2 FreeSpace E4 product is shown below:



13 *Id.* at 74.

14 379. A Picture of the four “ZONE OUT outputs” as well as the “speaker cable” and  
15 “speaker cable connectors” utilized by the Bose FreeSpace E4 product is shown below:  
16  
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## 4.7.9 Amplifier ZONE OUT outputs

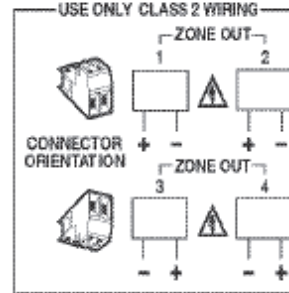
Speaker systems in up to four zones can be connected to the ZONE OUT amplifier outputs.



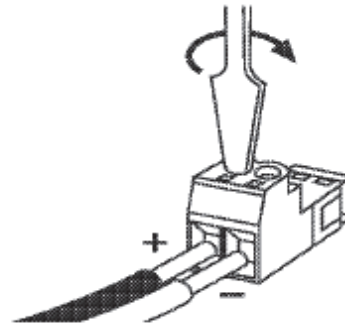
**Installer's Note:** Please notice the polarity markings on the ZONE OUT 1-4 connectors. Wire each connection as shown, using the 2-terminal output connector from the accessory kit.



**Installer's Note:** DO NOT ground the minus (-) side of the line.



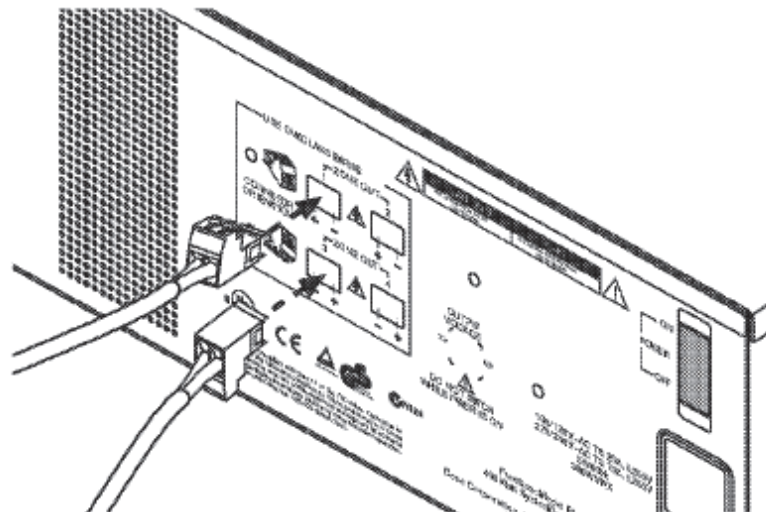
1. Install a two-terminal output connector (supplied) on the speaker cable from each zone.



2. Plug the speaker cable connectors into the appropriate ZONE OUT jack.



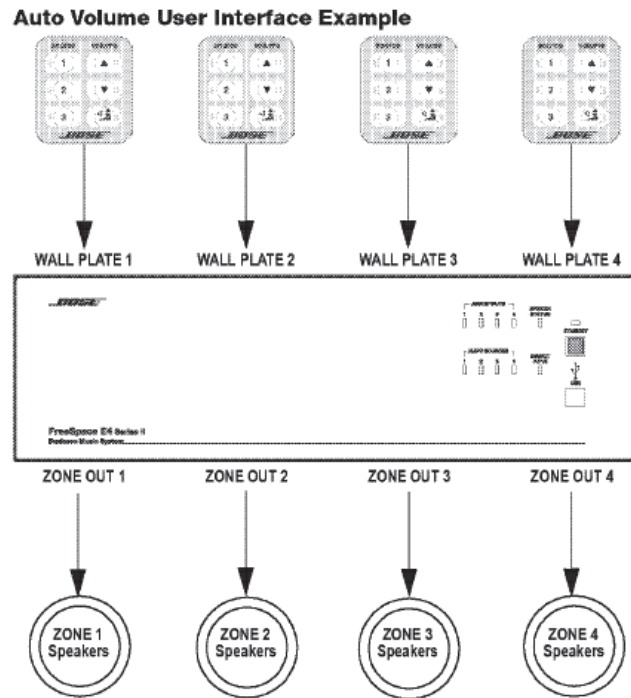
**Installer's Note:** Be sure to position the cable connector in the correct orientation for the ZONE OUT jacks: Screw heads face upward for ZONE OUT 1 and 2 jacks, screw heads face downward for ZONE OUT 3 and 4 jacks.





*Id.* at 93.

380. An example four “zone” configuration using the Bose FreeSpace E4 product is shown in the image below:



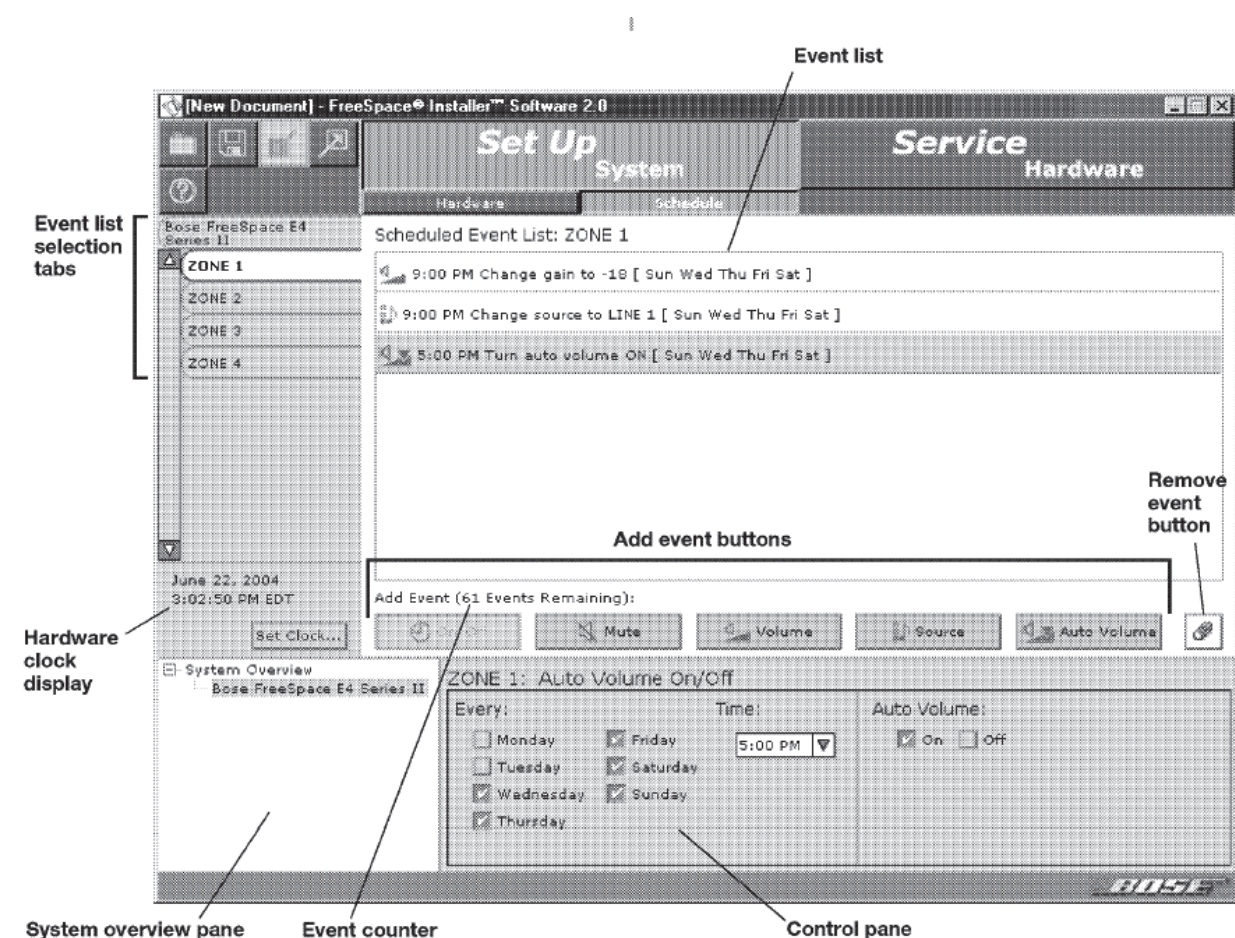
*Id.* at 121.

381. Based on this disclosure, it is my opinion that a system comprising the Bose FreeSpace E4 product connected to different passive speakers systems in different zones via speaker cable is a conventional centralized, hard-wired audio system such as that described in the Background section of the '966 Patent, where audio from audio sources connected to the centralized Bose FreeSpace E4 product is distributed to connected speaker systems. *See* '966 Patent at 1:46-2:16. A POSITA would not consider the centralized Bose FreeSpace E4 product and connected speaker systems to be operating on a data network because the hard-wired connection described in the Bose FreeSpace Owner's Guide is not a medium that interconnects devices, enabling them to send digital data packets to and receive digital data packets from each other. Moreover, as explained below, passive speakers like the ones that are hard-wired via speaker cable to the centralized Bose FreeSpace E4 product are not “zone players,” as required by the Asserted Claims of the '966 Patent, because they are not data network devices and are not



configured to process and output audio.

382. The Bose FreeSpace Owner's Guide also explains that a user can connect a computer to the Bose FreeSpace E4 product and use the "Set Up Schedule mode" on the "FreeSpace Installer Software" to "automate a system by creating up to 64 events." See BOSE\_SUB-0000062-136 at 101. "Events" can be set up for each of the four individual zones on the Bose FreeSpace E4 product and can include "events" such as "On/Off, Mute, Volume, Source, and Audio Volume." *Id.* I have not seen any evidence that an "event" can be set up for multiple zones. Rather, it appears that "events" are only be set up for a single zone, as shown in the image below where the list of "events" is specific to "ZONE 1":

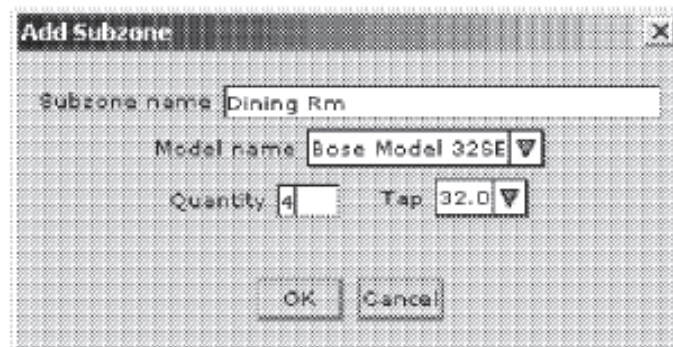
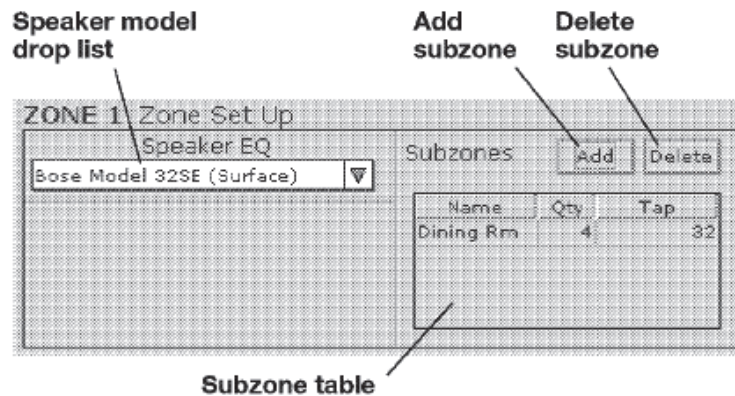


*Id.*

383. Such events "are only saved to the E4 unit" itself and there is no disclosure that

information about the events is transmitted to any other device such as a speaker system in a zone to which the event pertains. *Id.* at 103 (“Programmer’s Note: Events are only saved to the E4 unit when you click the ... Flash Hardware Configuration button.”). In other words, events are merely set up on the Bose FreeSpace E4 product and not communicated with any other device, and then audio is distributed from the centralized E4 Bose FreeSpace product to connected speaker systems in accordance with the events.

384. The Bose Freespace Owner’s Guide also discloses how that “The Zone Setup control panel allows you to select the EQ for the speakers used in a zone and to document (optional) the number of speakers in a subzone and their tap settings,” as shown in the images below:



*Id.* at 107-108

385. As explained, “[t]he Subzones table allows you to document the speakers used in a zone” and “select a tap setting” for those speakers, where a “zone is group of speakers that are driven by the same amplifier output channel” and “[a] subzone is a group of speakers within a zone

1 that use a common tap or are of a common type.” *Id.* at 108. “For example, you may have installed  
2 ten Model 16 speakers in a dining room and set it up as a zone to be driven by channel 1. In this  
3 zone you may have established two subzones, one with five Model 16 speakers tapped at 8W and  
4 the other with five tapped at 16W.” *Id.* In this regard, I understand that all speakers in a “zone”  
5 will play the same audio that the “zone” receives from the centralized Bose FreeSpace E4 product  
6 regardless of whether or not any “subzones” exist. I have seen no evidence that the “subzones”  
7 are a separate group of speakers that can play audio on their own separate and apart from the other  
8 speakers in the “zone.” Likewise, I have seen no evidence that an “event” can be set for just a  
9 “subzone.”

10 386. Moreover, I have not seen any evidence of anything other than audio being  
11 transmitted from the centralized Bose FreeSpace product to the connected speaker systems.

12 387. Further, I have not seen any evidence that the speaker systems that are connected  
13 to the centralized Bose FreeSpace E4 product can communicate with each other for any purpose.

14 388. In view of the above, a Bose FreeSpace system does not meet the “zone scenes”  
15 Requirements of the Asserted Claims of the ’966 Patent.

16 389. Notably, there is no disclosure in the Bose Freespace Owner’s Guide or any of the  
17 other Bose FreeSpace materials cited by Dr. Schonfeld teaching or suggesting that the Bose  
18 FreeSpace system is related to or somehow compatible with the Bose Lifestyle 50 System. To the  
19 contrary, based on the materials I have reviewed, it is my opinion that the Bose FreeSpace product  
20 and the Bose Lifestyle 50 System are not related or compatible. *See, e.g.*, BOSE\_SUB-0000663-  
21 683 at 666 (“The communication protocol used in the Lifestyle® 50 system is not compatible with  
22 the protocol currently used in other Lifestyle® systems.”). Indeed, I have seen no evidence that a  
23 Bose FreeSpace product could somehow be connected to a Bose Lifestyle 50 System. Instead,  
24 the systems appear to be alternatives for distributing audio from a central location to one or more  
25 rooms or zones via an audio cable, albeit with very different capabilities, as described above.

26 **2. Dr. Schonfeld’s “Bose Lifestyle” Reference Does Not Qualify as Prior**  
27 **Art**

28 390. For the reasons explained below, it is my opinion that Dr. Schonfeld’s alleged Bose

1 Lifestyle 50 System does not qualify as prior art.

2 391. As noted above, the various documents that Dr. Schonfeld cites to in his Opening  
3 Report describe at least four different Bose products and thus do not evidence the functionality of  
4 a single prior art system.

5 392. Moreover, Dr. Schonfeld has not even alleged, let alone explained how or why,  
6 these different Bose products would be combined into a single system and/or that such a  
7 combination was contemplated or actually made at a date prior to the December 21, 2005 invention  
8 date and/or the September 12, 2006 priority date of the '885 and '966 Patents. In fact, these Bose  
9 products and/or certain features of these products were not even compatible with one another. For  
10 these reasons, Dr. Schonfeld's "Bose Lifestyle" does not qualify as prior art.

11 393. Moreover, a POSITA would not be motivated to combine these different Bose  
12 products at least because of their incompatibility. Indeed, the Bose Lifestyle 50 System uses a  
13 proprietary radio frequency communication protocol that was specifically developed for the Bose  
14 Lifestyle 50 System and that is "not compatible" with protocols used in other Bose systems. *See*  
15 BOSE\_SUB-0000663-683 at 666.

16 394. One of the primary documents upon which Dr. Schonfeld relies to support his  
17 opinions – and the only document specifically directed to the Bose Lifestyle 50 System – is the  
18 "Bose Lifestyle 50 System Owner's Guide" (referred to herein as "Bose Lifestyle 50 Guide"),  
19 which bears a date of October 17, 2001. *See* BOSE\_SUB-0000001-55 at 1. While Dr. Schonfeld  
20 characterizes the October 17, 2001 date as a "publication date," Dr. Schonfeld has not established  
21 that the Bose Lifestyle 50 Guide was publicly available on that date or any date prior to the  
22 December 21, 2005 invention date and/or September 12, 2006 priority date of the '885 and '966  
23 Patents. Dr. Schonfeld also has not established that the disclosures in the Bose Lifestyle 50 Guide  
24 were embodied in a system that was publicly available in the United States at a time that would  
25 qualify the system as prior art.

26 395. Dr. Schonfeld also appears to assert that the Bose Lifestyle 50 System itself was  
27 "publicly available at least as of 2003." *See* Schonfeld Op. Report at ¶ 223. Dr. Schonfeld cites  
28 to two different websites to support this assertion. The first is the Bose website, which states that



1 the Bose Lifestyle 50 System was “[s]old from 1970-2003.” SONOS-SVG2-00226910  
2 ([https://www.bose.com/en\\_us/support/products/bose\\_home\\_theater\\_support/bose\\_5\\_speaker\\_ho](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls50.html)  
3 [me\\_theater\\_support/ls50.html](https://www.bose.com/en_us/support/products/bose_home_theater_support/bose_5_speaker_home_theater_support/ls50.html)). However, this website does not indicate whether the Bose  
4 Lifestyle 50 System was “publicly available” in the United States at least as of 2003. At best, this  
5 website suggests that wherever the Bose Lifestyle 50 System was available, it was discontinued in  
6 2003. I also note that the information on this webpage does not appear to be accurate as I have  
7 seen no evidence that the Bose Lifestyle 50 System was sold as far back as 1970. To the contrary,  
8 the Bose Lifestyle 50 Guide references a CD player and it is my understanding that the first CD  
9 player was not commercially released until 1982. See SONOS-SVG2-00226948  
10 ([https://en.wikipedia.org/wiki/Sony\\_CDP-101](https://en.wikipedia.org/wiki/Sony_CDP-101)). Similarly, the third party “audio review” website  
11 cited by Dr. Schonfeld also does not establish that the Bose Lifestyle 50 System was “publicly  
12 available” in the United States at least as of 2003. To the contrary, two of the 2002-2003 reviews  
13 reference foreign currency suggesting that the reviews apply to systems that may have been  
14 publicly available outside of the United States. *Id.*  
15 <http://www.audioreview.com/product/other/mini-systems/bose/lifestyle-50.html>.

16 396. Confusingly, in describing the Bose Lifestyle 50 System, Dr. Schonfeld also relies  
17 on disclosure in various materials related to other Bose products, namely, Bose Lifestyle SA-2 and  
18 SA-3 Amplifiers and their ability to be added to a Bose link media center of a Bose Lifestyle® 18  
19 series II, 28 series II, 38 or 48 home entertainment system; Bose link communication protocol; and  
20 Bose FreeSpace EF Series II Business Music System. Dr. Schonfeld has not explained how such  
21 disclosure is relevant to the operation of the actual Bose Lifestyle 50 System upon which he claims  
22 to rely for invalidity. Moreover, Dr. Schonfeld has not even alleged, let alone explained how or  
23 why, these different Bose products would be combined with the Bose Lifestyle 50 System and/or  
24 that such a combination was contemplated or actually made at a date prior to the December 21,  
25 2005 invention date and/or the September 12, 2006 priority date of the '885 and '966 Patents.

26 397. For example, in describing the Bose Lifestyle 50 System, Dr. Schonfeld relies on  
27 disclosure in materials related to the Bose FreeSpace EF Series II Business Music System (“Bose  
28 FreeSpace System”). *See, e.g.*, Schonfeld Op. Report at ¶ 219 (citing BOSE\_SUB-0000056-59 at

56), ¶632 (citing BOSE\_SUB-0000062-136 at 122; BOSE\_SUB-0000140-147 at 144-145), ¶638 (citing BOSE\_SUB-0000150-156 at 150, BOSE\_SUB-0000157-160 at 157). One of the primary documents upon which Dr. Schonfeld relies to support his opinions regarding the Bose FreeSpace System is the “Bose FreeSpace EF Series II Business Music System Owner’s Guide” (“Bose FreeSpace Owner’s Guide”), which bears a date of July 10, 2004. *See* BOSE\_SUB-0000062-136. While Dr. Schonfeld characterizes the July 10, 2004 date as a “publication date,” Dr. Schonfeld has not established that the Bose FreeSpace Owner’s Guide was publicly available on that date or any date prior to the December 21, 2005 invention date and/or the September 12, 2006 priority date of the ’885 and ’966 Patents. Dr. Schonfeld also has not established that the disclosures in the Bose FreeSpace Owner’s Guide were embodied in a system that was publicly available in the United States at a time that would qualify the system as prior art.

398. Dr. Schonfeld also appears to assert that the Bose Freespace product was “publicly available at least as of May 6, 2006.” *See* Schonfeld Op. Report at ¶ 218. However, Dr. Schonfeld did not cite to any evidence supporting this assertion and therefore has not proven that the Bose FreeSpace product was “publicly available” at least as of May 6, 2006. Additionally, I note that May 6, 2006 is after the December 21, 2005 invention date of the ’885 and ’966 Patents and therefore, even if the Bose FreeSpace was “publicly available” as of May 6, 2006, it would not qualify as prior art to the ’885 or ’966 Patents.

399. Relatedly, I also note that one of the Bose FreeSpace documents cited by Dr. Schonfeld has a copyright date of “2006,” which is after the December 21, 2005 invention date of the ’885 and ’966 Patents and is not clearly before the September 12, 2006 priority date. *See* BOSE\_SUB-0000140-147. Moreover, while some of the Bose FreeSpace materials cited by Dr. Schonfeld appear to be dated prior to the December 21, 2005 invention date and/or the September 12, 2006 priority date of the ’885 and ’966 Patents, Dr. Schonfeld has not proven that any of the materials were actually published in a manner that would qualify them as prior art or that the disclosures therein were embodied in a system that was publicly available in the United States at a time that would qualify the system as prior art.

400. As explained above, there is no disclosure in the Bose Freespace Owner’s Guide or



1 any of the other Bose FreeSpace materials cited by Dr. Schonfeld teaching or suggesting that the  
2 Bose FreeSpace system is related to or somehow compatible with the Bose Lifestyle 50 System.  
3 To the contrary, based on the evidence I have reviewed, it is my opinion that the Bose FreeSpace  
4 product and the Bose Lifestyle 50 System are not related or compatible. Moreover, Dr. Schonfeld  
5 has not even alleged, let alone explained how or why the Bose FreeSpace product would be  
6 combined with the Bose Lifestyle 50 System and/or that such a combination was contemplated or  
7 actually made at a date prior to the December 21, 2005 invention date and/or the September 12,  
8 2006 priority date of the '885 and '966 Patents.

9 401. As another example, in describing the Bose Lifestyle 50 System, Dr. Schonfeld  
10 relies on disclosure in a document titled "Understanding Bose link," which relates to the Bose link  
11 communication protocol. *See, e.g.*, Schonfeld Op. Report at ¶ 874 (citing at BOSE\_SUB-0000594-  
12 601 at 595-597). However, this document is not dated and Dr. Schonfeld has not proven that it  
13 was actually published in a manner that would qualify it as prior art or that the disclosures therein  
14 were embodied in a system that was publicly available in the United States at a time that would  
15 qualify the system as prior art. With respect to the publication of the document, the document  
16 itself appears to be an internal Bose document that was not published as it includes a "Company  
17 Confidential" designation.

18 402. As explained above, based on the materials I reviewed, it is my opinion that the  
19 Bose link communication protocol was not utilized by or compatible with the Bose Lifestyle 50  
20 System, including the Multi-Room Interface and the Personal media center. Further, Dr. Schonfeld  
21 has not explained how or why the Bose Link communication protocol would be combined with  
22 the Bose Lifestyle 50 System and/or that such a combination was contemplated or actually made  
23 at a date prior to the December 21, 2005 invention date and/or the September 12, 2006 priority  
24 date of the '885 and '966 Patents.

25 403. As another example, in describing the Bose Lifestyle 50 System, Dr. Schonfeld  
26 relies on disclosure in three documents related to the Bose Lifestyle SA-2 and SA-3 Stereo  
27 Amplifier products. *See, e.g.*, Schonfeld Op. Report at ¶ 872 (citing BOSE\_SUB-0000274-360 at  
28 289-290, 292), ¶ 873 (citing BOSE\_SUB-0000361-448 at 384-386), ¶ 930 (citing BOSE\_SUB-

1 0000450-454 at 450-452).

2 404. One of the SA-2 and SA-3 Amplifier documents that Dr. Schonfeld relies upon is  
3 dated 2010, which is well after the December 21, 2005 invention date and the September 12, 2006  
4 priority date of the '885 and '966 Patents. *See* BOSE\_SUB-0000274-360. Thus, this document  
5 does not qualify as prior art. Another one of the SA-2 and SA-3 Amplifier documents that Dr.  
6 Schonfeld relies on is not dated at all and Dr. Schonfeld has not proven that it actually published  
7 in a manner that would qualify it as prior art or that the disclosures therein were embodied in a  
8 system that was publicly available in the United States at a time that would qualify the system as  
9 prior art. *See* BOSE\_SUB-0000450-454.

10 405. The third SA-2 and SA-3 Amplifier document relied on by Dr. Schonfeld is titled  
11 "The Bose Lifestyle SA-2 and SA-3 Stereo Amplifier Owner's Guide" ("SA-2 and SA-3 Amplifier  
12 Guide"), which is dated 2004. *See* BOSE\_SUB-0000361-448. However, Dr. Schonfeld did not  
13 establish that the SA-2 and SA-3 Amplifier Guide was publicly available in 2004 or any date prior  
14 to the December 21, 2005 invention date and/or the September 12, 2006 priority date of the '885  
15 and '966 Patents. Dr. Schonfeld also did not establish that the disclosures in the SA-2 and SA-3  
16 Amplifier Guide were embodied in a system that was publicly available in the United States at a  
17 time that would qualify the system as prior art.

18 406. As explained above, unlike the Bose Lifestyle 50 System, the SA-2 and SA-3  
19 Amplifier products appear to have Bose link communication protocol capability. *See* BOSE\_SUB-  
20 0000361-448 at 366. Specifically, the SA-2 and SA-3 Amplifier products appear to be "Bose link  
21 expansion products." *See* BOSE\_SUB-0000594-601 at 595, 601. However, in order to utilize the  
22 Bose link communication protocol, the SA-2 and SA-3 Amplifier products need to be connected  
23 to a "Bose link enabled media center." *Id.* at 595 ("For a Bose link setup to work the system must  
24 include a Bose link enabled media center (a controller), a Bose link expansion product, and an  
25 expansion remote control."). As explained above, based on the evidence I have reviewed, the  
26 Multi-Room Interface of the Bose Lifestyle 50 System did not utilize the Bose link communication  
27 protocol and therefore is not a "Bose link enabled media center." Thus, if an SA-2 or SA-3  
28 Amplifier product were connected to the Multi-Room Interface of the Bose Lifestyle 50 System,

1 the Bose link communication protocol could not be used. *Id.* (“To communicate [using the Bose  
2 link communication protocol] there must be at least two participants that speak the same  
3 language.”).

4 407. Additionally, Dr. Schonfeld has not alleged, let alone proven that the SA-2 and SA-  
5 3 Amplifier products were actually combined with a Bose Lifestyle 50 System at a date prior to  
6 the December 21, 2005 invention date and/or the September 12, 2006 priority date of the ’885 and  
7 ’966 Patents.

8 408. For at least the reasons above, Dr. Schonfeld has not proven that the actual Bose  
9 Lifestyle 50 System or the combination of the various Bose products he relies on qualifies as prior  
10 art.

11 **E. Millington**

12 409. One of the secondary references that Dr. Schonfeld relies on in his Opening Report  
13 is Canadian Patent No. 2 533 852, which is a Canadian patent application that lists Mr. Millington  
14 as inventor. Dr. Schonfeld refers to this reference in his Opening Report as the “Millington”  
15 reference, and I will do the same.

16 410. I understand that Millington was published on February 10, 2005. Dr. Schonfeld  
17 provides a brief overview of Millington in his report. *See* Schonfeld Op. Report at ¶¶ 233-236.

18 411. Millington discloses a “network audio system” that includes (i) “zone players,”  
19 which are data network devices that are configured to process and output audio, and (ii) “user  
20 interface modules” that are configured to control the “zone players” (i.e., controllers). *See, e.g.,*  
21 Millington at 4, FIGs. 1-3. One example of the “network audio system” disclosed in Millington is  
22 illustrated in FIG. 1:  
23  
24  
25  
26  
27  
28

1 Examiner as indicated by the Examiner's statement that "ALL REFERENCES CONSIDERED  
2 EXCEPT WHERE LINED THROUGH," followed by the Examiner's signature. Thus, it is my  
3 understanding that the Examiner did consider the references identified above and determined that  
4 the claimed inventions of the '966 Patent were novel and non-obvious over those references.

5 1247. After suggesting that the USPTO did not consider the above-identified references,  
6 Dr. Schonfeld then states that "the USPTO did not have the benefit of the Court's claim  
7 construction for 'zone scene.'" Schonfeld Op. Report at ¶ 327. However, Dr. Schonfeld does not  
8 explain how this assertion is related to whether or not the USPTO considered the references or  
9 how "hav[ing] the benefit of the Court's claim construction for 'zone scene'" would have had any  
10 impact on the USPTO's decision to grant the '966 Patent. Regardless, for the reasons explained  
11 below, it is my opinion that the USPTO's decision to grant the '966 Patent over the above-  
12 identified references was correct, because those references fail to anticipate or render obvious any  
13 of the Asserted Claims of the 966 Patent.

14 1248. In the sub-sections below, I have provided a summary of the bases for my opinions,  
15 as well as responses to Dr. Schonfeld's opinions.

16 **1. Asserted Claim 1 is Not Rendered Obvious Based on The Bose Lifestyle**  
17 **50 System**

18 1249. For the reasons discussed below, in my opinion, Asserted Claim 1 of the '966 Patent  
19 is not rendered obvious by the Bose Lifestyle 50 System in view of "[g]eneral knowledge of a  
20 POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington."

21 **i. Dr. Schonfeld Fails to Map his Alleged "Bose Lifestyle 50**  
22 **System" Reference to the Claimed Devices of Claim 1**

23 1250. Asserted Claim 1 of the '966 Patent requires a physical "computing device" that is  
24 configured to "serv[e] as a controller for a networked media playback system" comprising at least  
25 three different physical "zone players."

26 1251. In Dr. Schonfeld's Opening Report, he fails to set forth any analysis of the Bose  
27 Lifestyle 50 System in connection with Asserted Claim 1 of the '966 Patent, and instead merely  
28 cites back to certain aspects of his analysis of the Bose Lifestyle 50 System in the context of

1 Asserted Claim 1 of the '885 Patent. Schonfeld Op. Report at ¶¶ 1034-1065. Thus, Dr. Schonfeld  
2 fails to articulate what he considers to be the “computing device,” the “zone players,” and the  
3 “networked media playback system” of Asserted Claim 1 of the '966 Patent in his “Bose Lifestyle  
4 50 System” reference.

5 1252. Moreover, Dr. Schonfeld’s analysis in his Opening Report of the Bose Lifestyle 50  
6 System in connection with Asserted Claim 1 of the '885 Patent does not provide any clarity on  
7 these issue as it is unclear what devices in the Bose Lifestyle 50 System Dr. Schonfeld is mapping  
8 to the “network device,” the “zone players,” and the “networked media playback system” of  
9 Asserted Claim 1 of the '885 Patent. *See* Schonfeld Op. Report at ¶¶ 855-962.

10 1253. To the extent Dr. Schonfeld is permitted to later provide analysis and/or new  
11 opinions regarding the Asserted Claims of the '966 Patent, I reserve my right to address such  
12 analysis and/or opinions in a supplemental report and/or at trial.

13 **ii. The Bose Lifestyle 50 System did not have “Zone Players”**

14 1254. Asserted Claim 1 of the '966 Patent requires a “computing device” that is  
15 programmed with certain functional capability including “serving as a controller for a networked  
16 media playback system comprising a first zone player and at least two other zone players.” As  
17 noted above, Sonos’s proposed construction of “zone player” as that term is used in the '966 Patent  
18 is a “data network device configured to process and output audio.” *Supra* Section X.B. And related  
19 to this proposed construction, Sonos’s interpretation of the plain and ordinary meaning of the term  
20 “data network” is “a medium that interconnects devices, enabling them to send digital data packets  
21 to and receive digital data packets from each other.” *Id.*

22 1255. As an initial matter, it is not clear what devices in the Bose Lifestyle 50 System Dr.  
23 Schonfeld is alleging to be the claimed “zone players.” *See* Schonfeld Op. Report at ¶¶ 859-865.  
24 Instead, his analysis of the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885  
25 Patent, Dr. Schonfeld merely states that the “Bose Lifestyle player corresponds to the claimed  
26 Zone Player and it provides the ability to stream music from a controller over a Wi-Fi or ethernet  
27 network.” *Id.* at 859. I am unaware of any device in the Bose Lifestyle 50 System called the “Bose  
28 Lifestyle player.” For this reason alone, Dr. Schonfeld has failed to prove that the Bose Lifestyle

1 50 System discloses the “zone players” of Asserted Claim 1 of the ’966 Patent.

2 1256. Regardless, in my opinion, the Bose Lifestyle 50 System fails to disclose “zone  
3 players” for at least the following reasons.

4 1257. First, to the extent Dr. Schonfeld is arguing that either a Jewel Cube speaker, an  
5 Acoustimass module, or an SA-2 or SA-3 amplifier as a “zone player,” I disagree. Applying  
6 Sonos’s constructions of “zone player” and “data network,” neither a Jewel Cube speaker, nor an  
7 Acoustimass module, nor an SA-2 or SA-3 amplifier is a “first zone player” because these devices  
8 (i) are not data network devices that can send digital data packets to and receive digital data packets  
9 from another device and (ii) are not capable of performing any digital data processing on the audio  
10 before outputting it. Instead, the evidence I have reviewed shows that a Jewel Cube speaker merely  
11 receives an audio signal over an audio cable from an Acoustimass module or SA-2 or SA-3  
12 amplifier and outputs audio, and that an Acoustimass module or SA-2 or SA-3 amplifier receives  
13 an audio signal over an audio cable from the Multi-Room Interface of the Bose Lifestyle 50 system  
14 and outputs audio. *See* BOSE\_SUB-0000001-55 at 7, 11-12, 14-15, 42; BOSE\_SUB-0000361-  
15 448 at 376. There is no evidence of two-way digital data packet communication between a Jewel  
16 Cube speaker and an Acoustimass module or SA-2 or SA-3 amplifier, or between an Acoustimass  
17 module or SA-2 or SA-3 amplifier and the Multi-Room Interface of the Bose Lifestyle 50 system.  
18 There is also no evidence of any communication whatsoever between Jewel Cube speakers or  
19 between Acoustimass modules or SA-2 or SA-3 amplifiers when these products are used with a  
20 Multi-Room Interface of the Bose Lifestyle 50 system, as Dr. Schonfeld appears to be asserting.  
21 And lastly, there is no evidence that these devices perform any digital data processing before  
22 outputting the audio.



1258. Second, to the extent Dr. Schonfeld is arguing that a Jewel Cube speaker of the Bose Lifestyle 50 System is the “first zone player,” I disagree because a Jewel Cube speaker is not configured to *process* and output audio. Instead, a Jewel Cube speaker is a passive speaker that is hard-wired to an Acoustimass module and simply outputs audio in the form of sound once an analog signal is received via an audio cable. See BOSE\_SUB-0000001-55 at 7, 11-12.

**Connecting the Jewel Cube® speakers to the Acoustimass® module**

1. Match each cable to the corresponding speaker location.

- Front speaker cables have blue RCA connectors at one end, with L, R, or C molded into both the RCA connectors and the Jewel Cube connectors at the other end.
- Surround speaker cables have orange RCA connectors at one end, with L or R molded into both the RCA connectors and the Jewel Cube connectors at the other end.

2. Insert the Jewel Cube connector of each cable fully into the jack on the rear of one of the five speakers (Figure 7). Match the ridge of the connector to the notch at the top of the jack.

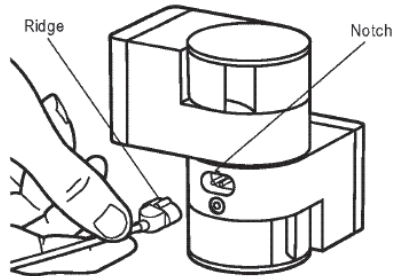
3. Connect each cable to the corresponding jack on the Acoustimass module (Figure 8).

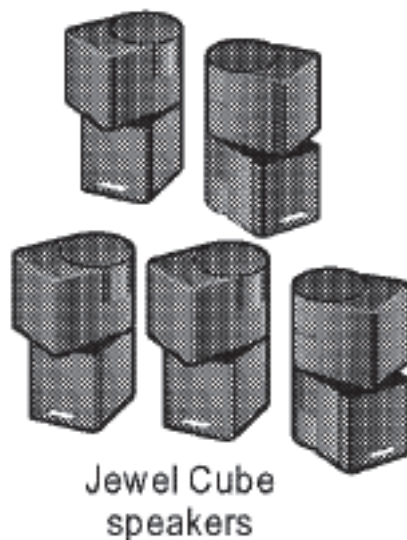
- Plug the blue connectors into the matching left front, center, and right front jacks.
- Plug the orange connectors into the matching left surround and right surround jacks.

To lengthen the cable, connect speaker wire with male phono (RCA) plugs on each end to your supplied speaker cable. Use a female-to-female adapter (“barrel” connector). Or, splice in 18-gauge (.75 mm) or thicker cord (connecting + to + and – to –). To purchase extension wire, see your dealer or electronics store, or call Bose® Customer Service.

**Figure 7**

Connecting speaker cables to Jewel Cube speakers



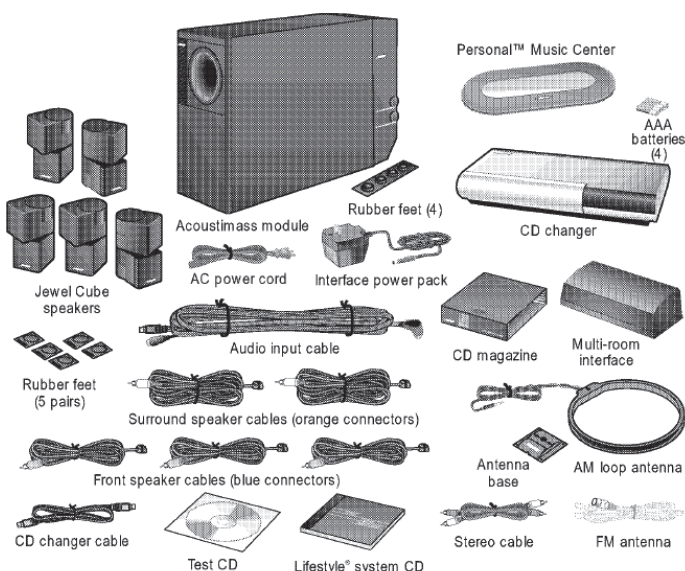


1259. Third, to the extent Dr. Schonfeld is arguing that an SA-2 or SA-3 amplifier is a “zone player,” I further disagree on the basis that an SA-2 or SA-3 amplifier is not part of the actual Bose Lifestyle 50 System, which is shown below:

**Figure 1**

*What comes with your Lifestyle® 50 system:*

- Personal music center
- CD changer
- Multi-room interface
- Interface power pack\*
- 5 Jewel Cube® speakers
- 5 speaker cables
- Acoustimass module
- AC power (mains) cord\*
- 14 self-adhesive rubber feet (4 for the module and 5 pairs for the Jewel Cube speakers)
- Audio input cable
- CD changer cable
- Stereo cable
- 4 AAA batteries
- FM antenna
- AM loop antenna
- AM antenna base
- CD magazine
- Lifestyle® system CD
- Test CD



BOSE\_SUB-0000001-55 at 7.

1260. Regardless, if an SA-2 or SA-3 amplifier were actually connected to the Multi-Room Interface of the Bose Lifestyle 50 System, it appears to me that it would operate like an

1 Acoustimass module in the sense that it would receive an audio signal over an audio cable from  
2 the Multi-Room Interface of the Bose Lifestyle 50 system with no two-way digital data packet  
3 communication between an SA-2 or SA-3 amplifier and the Multi-Room Interface of the Bose  
4 Lifestyle 50 system. *See* BOSE\_SUB-0000001-55 at 11-12, 42; BOSE\_SUB-0000361-448 at 376.

5 1261. Further, neither a Jewel Cube Speaker, Acoustimass module, or SA-2 or SA-3  
6 amplifier is a “zone player” as required by the Asserted Claims of the ’966 Patent because they did  
7 not have the capability to change their “configur[ation]” as it related to audio playback in order to  
8 transition between “standalone mode” and grouped mode.

9 1262. Herein, I sometimes refer to a device that can be used in a Bose Lifestyle 50 System  
10 to output audio – including an Acoustimass module, an SA-2 or SA-3 amplifier, and/or a connected  
11 speaker (e.g., Jewel Cube Speaker), as a “Lifestyle player.”

12 **iii. The Bose Lifestyle 50 System did not have “Zone Scenes”**  
13 **Functionality**

14 1263. Asserted Claim 1 of the ’966 Patent requires a “computing device” that is  
15 programmed with certain functional capability for creating and invoking a “zone scene,” which is  
16 a user-customized, pre-saved group of “zone players” that is able to exist in an inactive state while  
17 remaining available for selection by a user so that the group can be invoked later on demand for  
18 synchronous playback. And more specifically, Asserted Claim 1 of the ’966 Patent requires a  
19 “computing device” that is programmed with functional capability for creating multiple “zone  
20 scenes” having an overlapping “zone player” and then later invoking one of the “zone scenes.”

21 1264. As explained above in Sections IX and XV.A.1.i, there are several key distinctions  
22 between a “zone scene” and the types of temporary, ad-hoc groups that could be created by a user  
23 in prior art systems such as the Bose Lifestyle 50 System.

24 1265. Based on the evidence I have reviewed regarding Dr. Schonfeld’s “Bose Lifestyle  
25 50 System” reference, it is my opinion that neither the Personal Music Center (which serves as a  
26 wireless remote control for the actual Bose Lifestyle 50 System), nor the Personal Music Center  
27 in combination with the centralized Multi-Room Interface of the Bose Lifestyle 50 System, nor  
28 any of the other Bose controllers alone or in combination with other centralized audio distribution

1 devices in the various Bose documents relied on by Dr. Schonfeld had **any** functional capability  
2 for creating or invoking a “zone scene” – let alone the required functional capability to cause the  
3 creation of two different, overlapping “zone scenes” that are both available for selection by a user  
4 and then later cause a selected one of the two different “zone scenes” to be invoked, as required  
5 by Asserted Claim 1 of the ’966 Patent.

6 1266. As explained above, the evidence I reviewed indicates that the Personal Music  
7 Center of the Bose Lifestyle 50 System enabled a user to set up a “shared source” of audio that  
8 could be distributed via audio cables from the centralized Multi-Room Interface to Lifestyle  
9 players in up to four rooms (rooms A, B, C, and D) so that the same audio could be played back  
10 simultaneously<sup>52</sup> via the Lifestyle players and their connected speakers (e.g., the Jewel Cube  
11 speakers of the Bose Lifestyle 50 System). BOSE\_SUB-0000001-55 at 44-45. Based on the Bose  
12 Lifestyle 50 System evidence I reviewed, setting up a “shared source” was the only way to create  
13 any sort of “group” of Lifestyle players that were capable of playing back the same audio  
14 simultaneously. Herein I sometimes refer to such a group of Lifestyle players as a “shared source  
15 group.”

16 1267. As an example, to set up a “shared source group” in two rooms A and B, a user  
17 could (1) use the ROOM button on the Personal Music Center to select room A and then use a  
18 source button to set an audio source for room A; and (2) use the ROOM button on the Personal  
19 Music Center to select room B and then use the same source button to set the same audio source  
20 for room B. Thereafter, the user could use the ROOM button again to select both rooms A and B  
21 together such that both rooms could be controlled together:

22  
23  
24  
25  
26 <sup>52</sup> Notably, the Owner’s Guide for the Bose Lifestyle 50 System does not describe a group of  
27 Lifestyle players as outputting audio in “synchrony,” and it is my opinion that this configuration  
28 would not have provided “synchronous playback of media” as that phrase is used in the context of  
the ’966 Patent, because such a configuration would not have involved any coordination between  
the Lifestyle players or their connected speakers that had been grouped.

### **Setting up a shared source**

Now, let's say the system is already on and you want to play the FM radio in rooms A and B:

1. Wake up the Personal music center.
2. Press the ROOM button until the room indicator **A** is displayed. Press the FM source button and adjust the volume to the desired level for room A.
3. Press the ROOM button again to select room **B**. Press the FM source button and adjust the volume to the desired level for room B. Now, the indicators **A B** are displayed.
4. Press the ROOM button again. The indicators **A B** appear on the display indicating that you can control these two rooms together. Any button command given now (SOURCE, VOLUME, MUTE, ON/OFF, SLEEP) is applied to both rooms.

BOSE\_SUB-0000001-55 at 44.

1268. Alternatively, a user could set up a "shared source group" for all the available rooms A-D by pressing the HOUSE button on the Personal Music Center followed by pressing a source button to select the audio source that the user wanted to listen to in all rooms:

### **Using the HOUSE button**

Using the HOUSE button, you can link all rooms together and control them as one. When you press the HOUSE button, an empty box indicator is displayed for each connected room. Any button pressed after that (any source button, VOLUME, MUTE, or SLEEP) affects every room. When you are done listening you can press OFF to turn off the entire system.

**Note:** If you do not press any additional buttons after pressing HOUSE, pressing HOUSE again cancels HOUSE mode.

BOSE\_SUB-0000001-55 at 45.<sup>53</sup>

1269. As explained above, when a user set up a "shared source group" in one of the ways described above, the evidence I have reviewed indicates that the Personal Music Center would communicate with the centralized Multi-Room Interface and the centralized Multi-Room Interface would configure itself to distribute the same audio from the same audio source to each of the rooms sharing the source so that the same audio could be played back simultaneously via the Lifestyle players. See, e.g., BOSE\_SUB-0000001-55 at 6 ("The Bose Multi-Room Interface, with four

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<sup>53</sup> It is worth noting that pressing the HOUSE button itself does not cause, and is not used to configure, all the players to play audio in synchrony. For example, to control multiple players that are each playing different audio, a user could press the HOUSE button followed by pressing the mute button to mute all the players. See BOSE\_SUB-0000001-55 at 45.



1 independent audio outputs that allow you to enjoy Bose sound throughout your home.”), 12  
2 (illustrating a Bose Lifestyle 50 System configuration with a CD player and an Acoustimass  
3 module connected the Multi-Room Interface), 17 (illustrating various audio sources connected to  
4 Multi-Room Interface via audio input cables), 19 (“When batteries are first installed in the music  
5 center; it sets up a radio-frequency link with the closest multi-room interface.... If the music center  
6 continuously displays "NO RESPONSE," you need to try to establish its link with the multi-room  
7 interface again.”), 42 (Figure 47 showing “AUDIO OUTPUT” jacks for each room), 44-45  
8 (explaining how to use ROOM and HOUSE buttons of the Personal Music Center to set up an  
9 audio source for one or more rooms connected to the Multi-Room Interface), 45 (“To add a new  
10 music center to your system, follow the setup instructions on page 17. Be sure to install the  
11 batteries and turn it on for the first time close to the multi-room interface to allow the new music  
12 center to set up a radio frequency link with your system. If the multi-room interface is not plugged  
13 in or the music center is out of range, the display indicates NO RESPONSE.”). In this regard, the  
14 simultaneous audio playback in multiple rooms sharing a source was controlled exclusively by the  
15 centralized Multi-Room Interface and its ability to output the same source via the “AUDIO  
16 OUTPUT” jacks to each room in the “shared source group.” In other words, when a “shared source  
17 group” was activated, neither the Lifestyle players nor their connected speakers would change their  
18 configuration as it relates to audio playback. Instead, they would just play back the audio that they  
19 received from the centralized Multi-Room Interface in the same manner that would have played  
20 audio received from the centralized Multi-Room Interface had they not been added to a “shared  
21 source group.” As such, there would be no coordination between the Lifestyle players in a “shared  
22 source group” and the Lifestyle players would not have had any awareness of whether or not they  
23 were part of a “shared source group.”

24 1270. Further, the evidence I have reviewed indicates that once a “shared source group”  
25 was set up, a Lifestyle player sharing the audio source could not thereafter be used for individual  
26 audio playback until a user used the ROOM button of the Personal Music Center to select the  
27 Lifestyle player and then used a source button to set the audio source for the Lifestyle player to a  
28 different audio source such that it no longer shares an audio source with other Lifestyle players.

1 *Id.* at 44 (“Returning to single-room control[:] After you have gained control of multiple rooms  
2 using the ROOM button, you can use the ROOM button again to gain control of a single room.  
3 Press ROOM until the room you want is displayed (A, B, C, or D). Control that room as  
4 desired.”). In this way, a group of Lifestyle players having a “shared source” of audio would have  
5 to be destroyed before any one of the Lifestyle players in the group could be used for individual  
6 audio playback.

7 1271. Based on the foregoing evidence, it is clear that a “shared source group” of Lifestyle  
8 players only existed temporarily during the limited time that the “shared source group” was  
9 activated for playback, and as soon as a user wanted to use a Lifestyle player in an existing “shared  
10 source group” for individual playback or wanted to create a new “shared source group” that  
11 included one or more of the Lifestyle players in the existing “shared source group”, the existing  
12 “shared source group” would need to be destroyed by removing the one or more Lifestyle players  
13 that the user wanted to use for individual playback or wanted to include in a new “shared source  
14 group” of Lifestyle players. As a result, the only way a user could use a “shared source group”  
15 having that same group membership again in the future was by re-creating a new temporary  
16 “shared source group” that included the same members as the previously-existing “shared source  
17 group”. And as explained above, such a temporary, ad-hoc group that was automatically activated  
18 at the time of creation and then only remained in existence during the limited time it was activated  
19 is distinctly different from a “zone scene,” which requires a user-customized, pre-saved group of  
20 “zone players” that is able to exist in an inactive state while remaining available for selection by a  
21 user so that it can later be invoked on demand for synchronous playback.

22 1272. Indeed, as an initial matter, a “shared source group” of Lifestyle players was not a  
23 pre-saved group that was available to be *later invoked on demand* for synchronous playback at  
24 some time after the creation of the “shared source group”, which is a fundamental requirement of  
25 the claimed “zone scenes.” To the contrary, the Bose Lifestyle 50 System evidence I have  
26 reviewed makes clear that a “shared source group” of Lifestyle players was a temporary, ad-hoc  
27 group that was automatically activated at the time it was created and then only remained in  
28 existence until the time that the “shared source group” was deactivated, at which time the “shared

1 source group” would be automatically destroyed such that the “shared source group” was not  
2 available to be *later invoked on demand* for synchronous playback. *See, e.g.,* BOSE\_SUB-  
3 0000001-55 at 43 (“A shared source is one that is playing in the controlled room as well as in up  
4 to three additional rooms”), 44 (“Setting up a shared source[:] ... Press the ROOM button again.  
5 The **A** **B** indicators appear on the display indicating that you can control these two rooms together.  
6 Any button command given now (SOURCE, VOLUME, MUTE, ON/OFF, SLEEP) is applied to  
7 both rooms.”), 44 (“Returning to single-room control[:] After you have gained control of multiple  
8 rooms using the ROOM button, you can use the ROOM button again to gain control of a single  
9 room. Press ROOM until the room you want is displayed (**A**, **B**, **C**, or **D**). Control that room as  
10 desired.”), 45 (“Press the HOUSE button before each command to apply the command to all  
11 rooms: Press ... HOUSE then a source [to] [p]lay the selected source in all connected rooms.”).<sup>54</sup>

12 1273. Further, a “shared source group” of Lifestyle players was not a pre-saved group that  
13 was *able to exist in an inactive state* in which the pre-saved group was available for selection by a  
14 user but the “zone players” in the pre-saved group could still be used for individual audio playback,  
15 which is another fundamental requirement of the claimed “zone scenes.” To the contrary, the Bose  
16 Lifestyle 50 System evidence I have reviewed makes clear that a “shared source group” of  
17 Lifestyle players was only able to exist in an active state during which time it was not possible for  
18 a user to use any of the Lifestyle players added to the “shared source group” for individual audio  
19 playback, and once a “shared source group” was deactivated, it would be automatically destroyed  
20 such that it was no longer available for selection by a user. *See, e.g.,* BOSE\_SUB-0000001-55 at  
21 44 (“Returning to single-room control[:] After you have gained control of multiple rooms using  
22 the ROOM button, you can use the ROOM button again to gain control of a single room. Press  
23 ROOM until the room you want is displayed (**A**, **B**, **C**, or **D**). Control that room as desired.”).

24 1274. Further yet, a “shared source group” of Lifestyle players was not a pre-saved group  
25 of “zone players” that are “*to be configured for synchronous playback of media*” when the pre-

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26 <sup>54</sup> Like Squeezebox, the Bose Lifestyle 50 System utilizes temporary, ad-hoc grouping that is  
27 controlled by a centralized device – the SlimServer of Squeezebox and the Multi-Room Interface  
28 of the Bose Lifestyle 50 System. As such, the Bose Lifestyle 50 System suffers from many of the  
same defects with respect to Asserted Claim 1 of the ’996 Patent as Squeezebox.

1 saved group is “invoked” for the additional reason that the invocation of a “shared source group”  
2 – which took place automatically at the time the “shared source group” was created – did not  
3 involve any change to the *configuration* of the Lifestyle players as it relates to audio playback,  
4 which is another requirement of the claimed “zone scene.” To the contrary, the Bose Lifestyle 50  
5 System evidence I have reviewed indicates that a Lifestyle player added to a “shared source group”  
6 would have had the same configuration for audio playback both before and after the “shared source  
7 group” was invoked. BOSE\_SUB-0000001-55 at 6 (“The Bose Multi-Room Interface, with four  
8 independent audio outputs that allow you to enjoy Bose sound throughout your home.”), 12  
9 (illustrating a Bose Lifestyle 50 System configuration with a CD player and an Acoustimass  
10 module connected the Multi-Room Interface), 17 (illustrating various audio sources connected to  
11 Multi-Room Interface via audio input cables), 19 (“When batteries are first installed in the music  
12 center; it sets up a radio-frequency link with the closest multi-room interface.... If the music center  
13 continuously displays "NO RESPONSE," you need to try to establish its link with the multi-room  
14 interface again.”), 42 (Figure 47 showing “AUDIO OUTPUT” jacks for each room), 44-45  
15 (explaining how to use ROOM and HOUSE buttons of the Personal Music Center to set up an  
16 audio source for one or more rooms connected to the Multi-Room Interface), 45 (“To add a new  
17 music center to your system, follow the setup instructions on page 17. Be sure to install the  
18 batteries and turn it on for the first time close to the multi-room interface to allow the new music  
19 center to set up a radio frequency link with your system. If the multi-room interface is not plugged  
20 in or the music center is out of range, the display indicates NO RESPONSE.”); BOSE\_SUB-  
21 0000684-687 at 684-685. In fact, based on my review of the Bose Lifestyle 50 System evidence,  
22 it appears that a Lifestyle player and/or its connected speakers would not have had any awareness  
23 that it had been added to a “shared source group” that would have prompted the Lifestyle player  
24 to change its configuration for audio playback – the information about a “shared source group”  
25 would have been exclusively maintained by the Multi-Room Interface.

26 1275. Further yet, a “shared source group” of Lifestyle players was not capable of having  
27 a group member that was also a member of a different “shared source group” available for selection  
28 by a user, which is another requirement of the claimed “zone scenes.” To the contrary, a Lifestyle

1 player could only be a member of one “shared source group” that was in existence at any given  
2 time, and the only way a Lifestyle player in a first “shared source group” could have been added  
3 to a second “shared source group” was to destroy the first “shared source group.”

4 1276. Further yet, the Bose Lifestyle 50 System evidence I have reviewed confirms that  
5 there was no ability for a user to assign a thematic name to a “shared source group,” which fails to  
6 meet the additional “according to a common theme” requirement of Google's proposed  
7 construction of a “zone scene,” as interpreted by the Court.

8 1277. Further yet, a “shared source group” does not comprise a user-customized, pre-  
9 saved group of “zone players” as required by a “zone scene,” because the Jewel speakers,  
10 Acoustimass Modules, and/or SA2 or SA3 amplifiers are not “zone players,” as described above.

11 1278. Finally, the Bose Lifestyle 50 System is the type of “conventional multi-zone audio  
12 system” that the ’966 Patent describes as having limitations with regard to grouping and that the  
13 “zone scenes” functionality of the ’96 Patent distinguished and improved upon. *See* ’966 Patent  
14 at 1:30-2:24; *see also* Case No. 20-6754, D.I. 309 at 3-5, 12.

15 1279. Thus, for at least these reasons, it is my opinion that a “shared source group” of  
16 Lifestyle players in a Bose Lifestyle 50 System does not constitute a “zone scene.”

17 1280. Further, with respect to creating a “shared source group” using the “HOUSE”  
18 button to cause the Multi-Room Interface to output the same audio to all rooms in a home, this  
19 “HOUSE” option appears to be hard-coded into the Personal Music Center. It was not a user-  
20 created, customized group that was predefined and pre-saved at a user’s request as part of an initial  
21 “setup” phase, which is a required aspect of the claimed “zone scenes.” *See* Case No. 20-6754,  
22 D.I. 309 at 4 (the Court finding that Sonos’s patented “zone scene” technology “‘allows a *user* to  
23 *customize and save* multiple groups of smart speakers or other players . . . and then later ‘activate  
24 a *customized* group, called a ‘zone scene,’ on demand), 8 (the Court noting that the “basic purpose  
25 of the invention . . . is to allow *users* to *pre-save customized speaker groups* and later ‘invoke’ the  
26 named group on demand”), 12 (the Court finding that “[t]he claimed ability to *customize and save*  
27 *overlapping speaker groups* and easily control group playback represents a clear technological  
28 improvement over the ‘conventional multi-zone audio system,’ which, as the specification



1 explained, presents significant technological and physical obstacles to forming speaker groups”).

2 1281. Further, because the “HOUSE” option appears to be hard-coded into the Personal  
3 Music Center – and thus was not a user-created, customized group that was predefined and pre-  
4 saved at a user’s request as part of an initial “setup” phase – the “HOUSE” option of the Bose  
5 Lifestyle 50 System also fails to meet several other limitations of Asserted Claim 1 of the ’966  
6 Patent. For instance, a Personal Music Center never received “a request to create” the “HOUSE”  
7 option, never “caus[ed] creation of” the “HOUSE” option, never “caus[ed] an indication of” the  
8 “HOUSE” option to be transmitted to a Lifestyle player based on a “request to create” that option,  
9 and never “caus[ed] storage of” the “HOUSE” option based on a “request to create” that option.

10 1282. Further yet, there was no ability for a user to assign a thematic name to the  
11 “HOUSE” option, which fails to meet the additional “according to a common theme” requirement  
12 of Google's proposed construction of a “zone scene,” as interpreted by the Court.

13 1283. Thus, for at least these reasons, it is my opinion that the “HOUSE” option provided  
14 by the Bose Lifestyle 50 System was merely just a different way to create an ad-hoc “shared source  
15 group,” and also does not constitute a “zone scene.” *See also* SONOS-SVG2-00026839-58 at  
16 SONOS-SVG2-00026840 (explaining that the “Zone Scene feature” is “similar to the current Party  
17 Mode setting that is available” but that “*the Zone Scenes feature is much more flexible and*  
18 *powerful*”).

19 1284. I further note that the none of the Bose Lifestyle 50 System evidence that I have  
20 reviewed uses the term “zone scenes” or otherwise describes any technology that would have  
21 enabled a user to create a user-customized, pre-saved group of Lifestyle players that was able to  
22 exist in an inactive state while remaining available for selection by a user so that it could later be  
23 invoked on demand for synchronous playback, which further confirms that the Bose Lifestyle 50  
24 System did not have any functional capability for creating or invoking a “zone scene.”

25 1285. Turning to the additional requirement of the Asserted Claim 1 of the ’966 Patent  
26 that the claimed “computing device” be programmed with functional capability for causing the  
27 creation of two overlapping “zone scenes” that co-exist with one another and are both available  
28 for selection by a user at the same time, this functionality is also not possible with the Bose

1 Lifestyle 50 System. Indeed, even setting aside the above-described fundamental differences  
2 between a “shared source group” of Lifestyle players and a “zone scene,” the Personal Music  
3 Center did not have the possibility to create two overlapping “shared source groups” that co-exist  
4 in this manner. To the contrary, the Bose Lifestyle 50 System evidence I have reviewed establishes  
5 that a Lifestyle player could only be a member of one “shared source group” of Lifestyle players  
6 that was in existence at any given time, and that the only way a Lifestyle player in a first “shared  
7 source groups” could have been added to a second “shared source groups” was to destroy the first  
8 group by changing the audio source for the Lifestyle player to match the “shared source” of audio  
9 for the second group. *See, e.g.* BOSE\_SUB-0000001-55 at 43-45 (explaining how to use ROOM  
10 and HOUSE buttons to set up an audio source for one or more rooms).

11 1286. Despite this clear evidence establishing that the Personal Music Center, the Multi-  
12 Room Interface, and the Lifestyle players in a Bose Lifestyle 50 System did not have any “zone  
13 scene” capability, Dr. Schonfeld nevertheless opines that the “zone scene” limitations required by  
14 the Asserted Claims of the ’966 Patent were either disclosed or rendered obvious by the Bose  
15 Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1034-1065. However, I find Dr. Schonfeld’s  
16 opinions regarding the Bose Lifestyle 50 System and the “zone scene” limitations of the Asserted  
17 Claims of the ’966 Patent to be flawed for several reasons.

18 1287. As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his  
19 opinions regarding the Bose Lifestyle 50 System and the “zone scene” limitations of the Asserted  
20 Claims of the ’966 Patent. Instead, Dr. Schonfeld merely refers back to his discussion of certain  
21 claim limitations of Asserted Claim 1 of the ’885 Patent and makes the following conclusory  
22 statement:

23 1039. *See supra* ‘885 claim 1, Limitation 1.6. Included in my incorporation by reference  
24 is my discussion of the “first zone scene” disclosure in, e.g., 1.6. I include in my incorporation by  
25 reference the discussion of the creation of the first zone scene, its composition, its synchronous  
26 playback configuration, and the ability of invocation of that zone scene. Additionally, dependent  
27  
28

1  
2 1288. However, the Asserted Claims of the '966 Patent are directed to a different type of  
3 device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as  
4 a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different  
5 claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any  
6 further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context  
7 of the "zone scene" limitations of Asserted Claim 1 of the '885 Patent applies to the "zone scene"  
8 limitations of the Asserted Claims of the '966 Patent. In fact, Dr. Schonfeld fails to even state  
9 whether his opinion is that the "zone scene" limitations of the Asserted Claims of the '966 Patent  
10 were actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that the  
11 "zone scene" limitations of the Asserted Claims of the '966 Patent were only *rendered obvious* by  
12 the Bose Lifestyle 50 System. For these reasons, I disagree that Dr. Schonfeld's barebones  
13 discussion of the "zone scene" limitations of the '966 Patent amounts to a detailed and complete  
14 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
15 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
16 ability to fully discern, assess, and respond to his opinions regarding the "zone scene" limitations  
17 of the Asserted Claims of the '966 Patent.<sup>55</sup>

18 1289. Moreover, I have reviewed the section of Dr. Schonfeld's Opening Report where  
19 he discusses the Bose Lifestyle 50 System in the context of claim limitation 1.6 of Asserted Claim  
20 1 of the '885 Patent, and nothing in that section of Dr. Schonfeld's Opening Report alters my  
21 opinion that the Bose Lifestyle 50 System did not include the "zone scenes" capability required by  
22 the Asserted Claims of the '966 Patent.

23 1290. Indeed, Dr. Schonfeld's theories and opinions regarding the alleged existence of  
24 "zone scenes" capability in the Bose Lifestyle 50 System are all premised on Dr. Schonfeld's  
25 incorrect interpretation of what is required to qualify a "zone scene," and are also premised on  
26 several inaccurate and misleading characterizations of Bose Lifestyle 50 System and the evidence

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27 <sup>55</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 related thereto.

2 1291. As an initial matter, Dr. Schonfeld's opinion that the Bose Lifestyle 50 System  
3 discloses a "zone scene" is based in part on functionality that is not related to the actual Bose  
4 Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 899-904. Indeed, in addition to relying  
5 on setting up a "shared source group" using the "ROOM" and "HOUSE" buttons of the Personal  
6 Music Center of the Bose Lifestyle 50 System (*id.* at ¶ 901 (citing BOSE\_SUB-0000001 at 40,  
7 43), which I explained above, Dr. Schonfeld also relies on disclosure related to (i) the Bose  
8 Freespace E4 system (*id.* at ¶ 902 (citing BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140  
9 at 144-145) which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50  
10 System, (ii) setting up SA-2 and/or SA-3 Amplifiers in "additional rooms" using Bose link  
11 technology of a Bose "Lifestyle 18 series II, 28 series II, 38 or 48 home entertainment system" (*id.*  
12 at ¶ 903 (citing BOSE\_SUB-0000274-360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-  
13 386)) – not a Bose Lifestyle 50 System that does not have Bose link capability: and (iii) the Bose  
14 link communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)) – which,  
15 as explained above, is not utilized by or compatible with the Bose Lifestyle 50 System. For these  
16 reasons alone, Dr. Schonfeld's theory is flawed and he has failed to prove that the actual Bose  
17 Lifestyle 50 System discloses the claimed "zone scene" functionality.

18 1292. Regardless, none of the disclosures that Dr. Schonfeld identifies teach a "zone  
19 scene."

20 1293. To start, Dr. Schonfeld does not even attempt to explain how what he points to  
21 meets the actual requirements of a "zone scene," which requires a user-customized, pre-saved  
22 group of "zone players" that is able to exist in an inactive state while remaining available for  
23 selection by a user so that it can later be invoked on demand for synchronous playback. *See*  
24 Schonfeld Op. Report at ¶¶ 899-904. For example, with respect to the actual Bose Lifestyle 50  
25 System, Dr. Schonfeld merely states that "Bose LifeStyle allows for the addition of multiple rooms  
26 and zones to the be added to the Lifestyle ecosystem, and provides for the ability to operate in  
27 multiple rooms" and then points to various disclosure in the Owner's Guide related to setting up a  
28 "shared source group" using the "ROOM" and "HOUSE" buttons of the Personal Music Center of

1 the Bose Lifestyle 50 System. *Id.* at ¶ 901. Dr. Schonfeld's assertion here does not explain how  
2 the disclosure he cites to meets the actual requirements of a "zone scene," which requires a user-  
3 customized, pre-saved group of "zone players" that is able to exist in an inactive state while  
4 remaining available for selection by a user so that it can later be invoked on demand for  
5 synchronous playback. Regardless, I have already explained above why a "shared source group"  
6 in the Bose Lifestyle 50 System is not a "zone scene."

7 1294. Turning to his reliance on a Bose Freespace system, Dr. Schonfeld merely states  
8 that "Bose Lifestyle explicitly allows for multiple zones and operation" and then points to various  
9 disclosure related to the four "zones" of a Bose Freespace system. Schonfeld Op. Report at ¶ 902.  
10 Merely "allow[ing] for multiple zones and operation" does not teach a "zone scene," which  
11 requires a user-customized, pre-saved group of "zone players" that is able to exist in an inactive  
12 state while remaining available for selection by a user so that it can later be invoked on demand  
13 for synchronous playback. Moreover, as I explained above, the Bose FreeSpace E4 product  
14 "allow[s] for an input source to be routed to any of the four amplifier outputs," which allows for  
15 audio distribution for up to four different "zones." BOSE\_SUB-0000062-136 at 74. As shown  
16 and described in the Bose Freespace Owner's Guide, "[s]peaker systems in up to four zones can  
17 be connected to the ZONE OUT amplifier outputs" using "the speaker cable from each zone." *Id.*  
18 at 93. I have not seen any evidence that the four individual "zones" can be combined together  
19 and/or have any overlapping speaker systems.

20 1295. With respect to the "Multi-zone paging" disclosure in the cited by Dr. Schonfeld, I  
21 fail to see how this teaches a "zone scene," which requires a user-customized, pre-saved group of  
22 "zone players" that is able to exist in an inactive state while remaining available for selection by a  
23 user so that it can later be invoked on demand for synchronous playback. BOSE\_SUB-0000062-  
24 136 at 122.

25 1296. At best, the "ALL" paging button provided on the "Multi-zone paging user  
26 interface" appears to be similar to the hard-coded HOUSE button of the Personal Music Center.  
27 Thus, for the same reasons I explained above with respect to the HOUSE button, the "ALL" paging  
28 button in a Bose Freespace system does not teach a "zone scene." Further, there is nothing in this



1 disclosure that would allow a user to group any of the other four “paging zones” together. Thus,  
2 even if the “ALL” paging button were a “zone scene” (it is not), there would be no way to create  
3 two different, overlapping groups of “zone scenes,” as required by Asserted Claim 1 of the ’966  
4 Patent.

5 1297. I also fail to see how the “Two-Zone System” and “Four-Zone System” figures  
6 cited by Dr. Schonfeld teach a “zone scene,” which requires a user-customized, pre-saved group  
7 of “zone players” that is able to exist in an inactive state while remaining available for selection  
8 by a user so that it can later be invoked on demand for synchronous playback. BOSE\_SUB-  
9 0000140 at 144-145. Instead, these figures merely explain how different “sources” are routed to  
10 different “zones” in a two- or four-zone system.

11 1298. Turning to Dr. Schonfeld’s reliance on the SA-2 and SA-3 Amplifier Guide, Dr.  
12 Schonfeld merely states that “Bose LifeStyle also allows for playing in multiple rooms.” *See*  
13 Schonfeld Op. Report at ¶ 903. Merely “allow[ing] for playing in multiple rooms” does not teach  
14 a “zone scene,” which requires a user-customized, pre-saved group of “zone players” that is able  
15 to exist in an inactive state while remaining available for selection by a user so that it can later be  
16 invoked on demand for synchronous playback. While is it unclear what exactly Dr. Schonfeld is  
17 relying on in the SA-2 and SA-3 Amplifier Guide, it appears that he may be relying on the  
18 following disclosure related to the ability to add additional rooms:

## Setting Up Additional Rooms For Sound

English

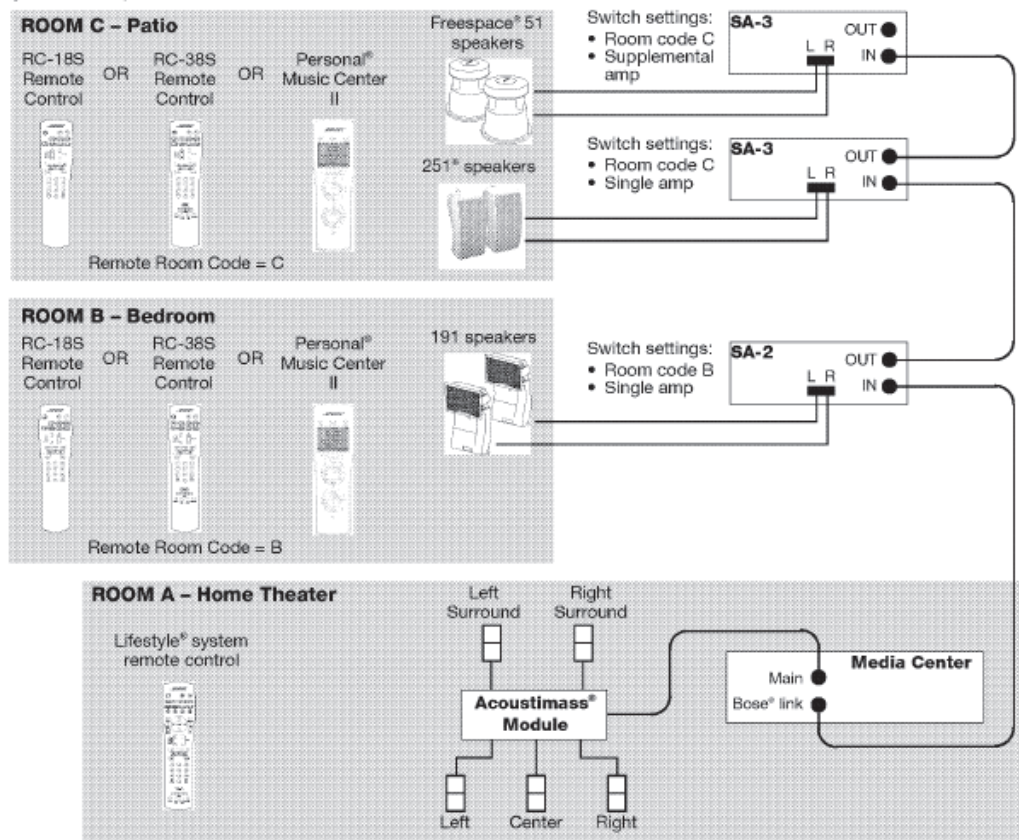
### Setup guidelines for additional rooms

If you have a Lifestyle® 18 series II, 28 series II, 38 or 48 home entertainment system, you can experience stereo sound in up to 14 other rooms using Lifestyle® stereo amplifiers, compatible speaker systems and remote controls for the other rooms.

- Remote controls for other rooms must be set to the same house code as the main room remote, but each remote must be set to a different room code. See "Setting up remote controls for other rooms" on page 23.
- The Lifestyle® amplifier and its remote control must be set to the same room code. See "Setting up the amplifier room code" on page 24.
- When using more than one amplifier to power more than two speakers in a room (Figure 18, room C), all amplifiers must be set to the same room code. Also, one amplifier must be set to the single amp mode and all others must be set to the supplemental amp mode. See "Single and supplemental amplifiers" on page 25.

**Figure 18**

Sample installation of Lifestyle® stereo amplifiers



1 (“[T]he Bose Link communication protocol allows for an indication that additional rooms, for  
2 example, have been added to the media center.”).

3 1299. Although unclear, in this regard Dr. Schonfeld appears to be asserting that manually  
4 hardwiring additional SA-2 or SA-3 amplifiers in additional rooms to a Bose link enabled Lifestyle  
5 media center teaches a “zone scene.” *Id.* I disagree. The mere fact that a user can manually  
6 hardwire additional SA-2 or SA-3 amplifiers in additional rooms to a Bose link enabled Lifestyle  
7 media center does not teach a “zone scene,” which requires a user-customized, pre-saved group of  
8 “zone players” that is able to exist in an inactive state while remaining available for selection by a  
9 user so that it can later be invoked on demand for synchronous playback. Such a theory is flawed  
10 for numerous reasons.

11 1300. First, manually hardwiring SA-2 or SA-3 amplifiers to a Bose link enabled Lifestyle  
12 media center does not involve a user creating a group of SA-2 or SA-3 amplifiers using a  
13 “computing device” whereby the group is user-customized and pre-saved group at the user’s  
14 request, which is a required aspect of a “zone scene.”

15 1301. Second, manually hardwiring SA-2 or SA-3 amplifiers to a Bose link enabled  
16 Lifestyle media center does not result in a group of SA-2 or SA-3 amplifiers that are “to be  
17 configured for synchronous [media] playback” at a future time when the group is invoked, which  
18 is another required aspect of a “zone scene.” Instead, the evidence I reviewed indicates that SA-2  
19 or SA-3 amplifiers that are hardwired in series to a Bose link connector can play different audio  
20 (stream 1 or stream 2) depending on the configuration of their corresponding dedicated remote  
21 controls. BOSE\_SUB-0000594-601 at 597 (explaining that “[a] Bose link enabled media center  
22 is also capable of managing two separate sources at the same time,” “any of the expansion rooms  
23 can be configured to operate on either stream 1 or stream 2,” and “[i]f an expansion remote  
24 configured for stream 1 sends an ON command to the media center, the media center will activate  
25 the pins that carry stream 1 information”).

26 1302. Third, because an SA-2 or SA-3 amplifier can only be selected individually via its  
27 own dedicated remote control, it was not possible for a group of multiple SA-2 or SA-3 amplifiers  
28 in different rooms to be selected for invocation, which is another required aspect of a “zone scene.”

1 As explained above, the evidence I reviewed indicates that each such SA-2 or SA-3 amplifier could  
2 only be controlled by its own dedicated Bose link enabled remote control that was set to the same  
3 room code as the SA-2 or SA-3 amplifier. *See* BOSE\_SUB-0000361-448 at 384-386 (“Remote  
4 controls for other rooms must be set to the same house code as the main room remote, but each  
5 remote must be set to a different room code. ... The Lifestyle® amplifier and its remote control  
6 must be set to the same room code.”). Because each dedicated remote control is coded to only a  
7 *single* amplifier, there is no remote control that enables the selection of a group of *multiple*  
8 amplifiers for invocation. And I have seen no evidence that multiple SA-2 or SA-3 amplifiers that  
9 are hardwired to a Bose link enabled Lifestyle media center could be controlled together with a  
10 single Bose link enabled remote control. Notably, as explained above, based on the evidence I  
11 reviewed, the Personal Music Center of the Bose Lifestyle 50 System was not Bose link enabled  
12 and therefore could not be used to control multiple SA-2 or SA-3 amplifiers that are hardwired to  
13 a Bose link enabled Lifestyle media center. To the contrary, the Personal Music Center and Multi-  
14 Room Interface of the Bose Lifestyle 50 System communicate using a proprietary radio frequency  
15 communication protocol that was specifically developed for the Bose Lifestyle 50 System and that  
16 is “not compatible” with protocols used in other Bose systems. *See* BOSE\_SUB-0000663-683 at  
17 666.

18 1303. I also note that Dr. Schonfeld cites to a disclosure of the Personal Music Center in  
19 the SA-2 and SA-3 Amplifier Guide. Schonfeld Op. Report at ¶ 903 (citing at BOSE\_SUB-  
20 0000274-360 at 289). To be clear, this disclosure related to using the Personal Music Center with  
21 a Multi-Room Interface that does not have a Bose link connector – not using the Personal Music  
22 Center with a “Bose link enabled media center.”

23 1304. Moreover, as explained above, in order for SA-2 and SA-3 amplifiers that are  
24 hardwired to a Bose link enabled Lifestyle media center to be able to playback the same audio  
25 simultaneously, the SA-2 and SA-3 amplifiers need to first be set to the same stream of audio  
26 (stream 1 or stream 2). *See, e.g.,* BOSE\_SUB-0000594-601 at 597. In this regard, the SA-2 and  
27 SA-3 amplifiers that are hardwired to a Bose link enabled Lifestyle media center share a “stream”  
28 of audio and thus rely upon the same “shared source” form of grouping as the Bose LifeStyle 50

1 System. Thus, for the same reasons that the “shared source” functionality of the Bose Lifestyle 50  
2 System fails to teach the “zone scenes” capability required by Asserted Claim 1 of the ’966 Patent,  
3 this Bose link configuration relied on by Dr. Schonfeld also fails to teach the “zone scenes”  
4 capability.

5 1305. Turning to the additional requirement of the Asserted Claim 1 of the ’966 Patent  
6 that the claimed “computing device” be programmed with functional capability for causing the  
7 creation of two overlapping “zone scenes” that co-exist with one another and are both available  
8 for selection by a user at the same time, Dr. Schonfeld opines that a Lifestyle player for a Bose  
9 Lifestyle 50 System would have met this requirement as well, based exclusively on the following  
10 theory: “[T]he Bose Lifestyle expressly teaches managing two separate streaming sources at one  
11 time, such that room A can operate on stream 1, and room B can operate stream 2, for example.”  
12 Schonfeld Op. Report at ¶ 907. However, this theory is flawed for a number of reasons.

13 1306. First, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System discloses two  
14 different, overlapping “zone scenes” each comprising a user-customized, pre-saved group of “zone  
15 players” that is able to exist in an inactive state while remaining available for selection by a user  
16 so that it can later be invoked on demand for synchronous playback is not based on any  
17 functionality of the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶ 907.  
18 Instead, Dr. Schonfeld relies exclusively on disclosure related to the Bose link communication  
19 protocol (*id.* at ¶ 907 (citing BOSE\_SUB-0000594-601 at 597) – which, as explained above, is not  
20 utilized by or incompatible with the Bose Lifestyle 50 System. For this reason alone, Dr.  
21 Schonfeld’s theory is meritless.

22 1307. Second, I fail to see how Dr. Schonfeld’s theory has any relevance to the  
23 requirement that a “computing device” be programmed with functional capability for causing the  
24 creation of two overlapping “zone scenes” that co-exist with one another and are both available  
25 for selection by a user at the same time, this functionality is also not possible with the Bose  
26 Lifestyle 50 System. Instead, per Dr. Schonfeld’s own words, his theory is based on the Bose link  
27 communication protocol enabling a single room A (not a group of rooms) being able to play audio  
28 provided via stream 1 and a single room B (not a group of rooms) being able to play audio provided



1 via stream 2. This has nothing to do with groups of Lifestyle players period, let alone two  
2 overlapping “zone scenes” that co-exist with one another and are both available for selection by a  
3 user at the same time. Instead, what Dr. Schonfeld describes is just two separate rooms being able  
4 to play two separate streams of audio.

5 1308. Third, if Dr. Schonfeld is suggesting that the Bose link technology allows a group  
6 of Lifestyle players to be defined by the stream of audio (stream 1 or stream 2) that they are  
7 configured to play, any given Lifestyle player can only be configured to play a single stream of  
8 audio at a given time. Thus, a Lifestyle player could never be a member of two different co-  
9 existing groups that are defined by different streams of audio. For example, the only way a  
10 Lifestyle player in a first group of Lifestyle players configured for stream 1 could have been added  
11 to a second group of Lifestyle players configured for stream 2 would be to destroy the first group  
12 by changing the audio stream for the Lifestyle player from stream 1 to stream 2 using the Lifestyle  
13 player’s dedicated remote control. *See, e.g.*, BOSE\_SUB-0000594-601 at 597 (If an expansion  
14 remote configured for stream 1 sends an ON command to the media center, the media center will  
15 activate the pins that carry stream 1 information.”); BOSE\_SUB-0000361-448 at 384-386  
16 (“Remote controls for other rooms must be set to the same house code as the main room remote,  
17 but each remote must be set to a different room code. ... The Lifestyle® amplifier and its remote  
18 control must be set to the same room code.”).

19 1309. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the Bose  
20 Lifestyle 50 System did not have a “computing device” with any functional capability for creating  
21 or invoking a “zone scene” – let alone the required functional capability to cause the creation of  
22 two different, overlapping “zone scenes” that are both available for selection by a user and then  
23 later cause selected one of the two different “zone scenes” to be invoked.

24 **iv. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.5**

25 1310. When read together, limitations 1.4 and 1.5 of Asserted Claim 1 of the ’966 Patent  
26 require the “computing device” to be encoded with executable “program instructions” that cause  
27 the computing device to perform the following function(s):  
28

1 [1.4] while serving as a controller for a networked media playback system comprising a  
2 first zone player and at least two other zone players, wherein the first zone player is  
3 operating in a standalone mode in which the first zone player is configured to play back  
4 media individually:

5 [1.5] receiving a first request to create a first zone scene comprising a first  
6 predefined grouping of zone players including at least the first zone player and a  
7 second zone player that are to be configured for synchronous playback of media  
8 when the first zone scene is invoked;

9 1311. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

10 1312. As explained above, the evidence I have reviewed establishes that the Personal  
11 Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on  
12 such as the combination of the Personal Music Center and the Multi-Room Interface<sup>56</sup>) in the Bose  
13 Lifestyle 50 System was only capable of receiving requests to form ad-hoc “shared source groups,”  
14 which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason,  
15 the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
16 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
17 in the Bose Lifestyle 50 System did not have the required functional capability to “receiv[e] a *first*  
18 *request to create a first zone scene* comprising a first predefined grouping of [Lifestyle players]  
19 including at least the first [Lifestyle player] and a second [Lifestyle player] that are to be  
20 configured for synchronous playback of media when the first zone scene is invoked.”

21 1313. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that  
22 is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a Sonos  
23 controller would have never received any “request to create” the hard-coded “HOUSE” option.

24 1314. Despite this clear evidence establishing that the Personal Music Center (and any  
25 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
26 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
27 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations  
28

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<sup>56</sup> Although unclear, some of Dr. Schonfeld’s demonstratives that were provided with his Opening Report appear to map the combination of the Personal Music Center and the Multiroom-room interface to the “network device” and the Jewel Cube speakers to the “zone players” of Asserted Claim 1 of the ’885 Patent.

1 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by  
2 the Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038-1039. However, I find Dr.  
3 Schonfeld's opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.5 of  
4 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

5 1315. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
6 Lifestyle 50 System and claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent is  
7 shown in the screenshots below from Dr. Schonfeld's Opening Report:  
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(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1, "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(vi) *Limitation 1.5 receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;*

1039. *See supra* '885 claim 1, Limitation 1.6. Included in my incorporation by reference is my discussion of the "first zone scene" disclosure in, e.g., 1.6. I include in my incorporation by reference the discussion of the creation of the first zone scene, its composition, its synchronous playback configuration, and the ability of invocation of that zone scene. Additionally, dependent claim 6 of the '966 patent informs the scope of independent claim 1. Dependent claim 6 of the '966 patent recites that "wherein the first predefined grouping of zone players does not include the third zone player, and wherein the second predefined grouping of zone players does not include the second zone player," effectively requiring that the first and second predefined groupings of zone players not be entirely overlapping, each with the same three zone players. Because claim 6 depends from claim 1 and must necessarily narrow the scope of claim 1, I understand that claim 1 includes first and second predefined groupings of zone players, where those groupings of zone players **can** wholly overlap. Indeed, such an overlap scenario would be consistent e.g., with a user having a user-created zone group including all three zone players, and having a "Party Mode," *i.e.*, a zone group including all three zone players. I therefore incorporate by reference the disclosure of "party mode" from my discussion, *supra*, regarding claim 1 of the '885 patent.

1  
2 1316. As these screenshots demonstrate, Dr. Schonfeld has not provided any analysis of  
3 how the Bose Lifestyle 50 System allegedly meets these limitations of Asserted Claim 1 of the  
4 '966. Instead, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle  
5 50 System in the context of certain claim limitations of the '885 Patent with the exception of the  
6 latter part of paragraph 1039, where he discusses dependent claim 6 and Sonos's "shared source  
7 group" and "Party Mode" functionality. However, the Asserted Claims of the '966 Patent are  
8 directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing  
9 device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations  
10 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations  
11 of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation  
12 as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim  
13 limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.5 of  
14 Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion  
15 is that claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent were actually *disclosed*  
16 by the Bose Lifestyle 50 System versus whether his opinion is that claim limitations 1.4 and 1.5  
17 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Bose Lifestyle 50  
18 System. And along similar lines, Dr. Schonfeld never once articulates what he considers to be the  
19 claimed "first request to create a first zone scene" in the Bose Lifestyle 50 System. For these  
20 reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4 and 1.5 of  
21 Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions  
22 to be expressed and the basis and reasons therefor, which I understand to be the governing standard  
23 for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess,  
24 and respond to his opinions regarding claim limitations 1.4 and 1.5 of Asserted Claim 1 of the '966  
25 Patent.<sup>57</sup>

26 1317. With that said, as I have discussed above in Section XV.C.1.iii as well as in my

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27 <sup>57</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.



1 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
2 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
3 number of flaws, many of which are applicable to claim limitations 1.4 and 1.5 of Asserted Claim  
4 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
5 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
6 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
7 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
8 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

9 1318. Lastly, the latter part of paragraph 1039 where he discusses dependent claim 6 and  
10 Sonos's “zone group” and “Party Mode” functionality appears to be a verbatim copy of paragraph  
11 972 from the section of Dr. Schonfeld's Opening Report related to Sonos's 2005 system, which I  
12 already addressed above. I fail to see how this paragraph discussing Sonos's “zone group” and  
13 “Party Mode” functionality has any relevance to the Bose Lifestyle 50 System, which did not have  
14 “zone groups” or a hard-coded “All Zones-Party Mode” option, and it appears to me that Dr.  
15 Schonfeld's inclusion of this paragraph in his section directed to the Bose Lifestyle 50 System may  
16 have been a copy/paste error.

17 1319. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
18 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
19 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
20 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
21 / 1.5 of Asserted Claim 1 of the '966 Patent.

22 **v. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.6**

23 1320. When read together, limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent  
24 require the “computing device” to be encoded with executable “program instructions” that cause  
25 the computing device to perform the following function(s):

26 [1.4] while serving as a controller for a networked media playback system comprising a  
27 first zone player and at least two other zone players, wherein the first zone player is  
28 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

...

[1.6] based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;

1321. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1322. As explained above, the evidence I have reviewed establishes that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System was only capable of forming ad-hoc “shared source groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other controller that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have the required functional capability to “i) caus[e] creation of the first zone scene, ii) caus[e] an indication of the first zone scene to be transmitted to the first [Lifestyle player], and iii) caus[e] storage of the first zone scene.”

1323. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that is relied upon by Dr. Schonfeld above fails to meet these limitations for the additional reason that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) of the Bose Lifestyle 50 System would have never received any “request to create” the hard-coded “HOUSE” option and also would have never “caus[ed] creation of” the hard-coded “HOUSE” option, “caus[ed] an indication of” the hard-coded “HOUSE” option to be “transmitted to the first [Lifestyle player],” or “caus[ed] storage of” the hard-coded “HOUSE” option.

1324. Despite this clear evidence establishing that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by

1 the Bose Lifestyle 50. *See* Schonfeld Op. Report at ¶¶ 1038, 1040. However, I find Dr.  
2 Schonfeld's opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.6 of  
3 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

4 1325. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
5 Lifestyle 50 System and claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent is  
6 shown in the screenshots below from Dr. Schonfeld's Opening Report:

7 (v) *Limitation 1.4 "while serving as a controller for a networked media*  
8 *playback system comprising a first zone player and at least two*  
9 *other zone players, wherein the first zone player is operating in a*  
10 *standalone mode in which the first zone player is configured to play*  
11 *back media individually."*

12 1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network  
13 interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10,  
14 "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

15 (vii) *Limitation 1.6 based on the first request, i) causing creation of the*  
16 *first zone scene, ii) causing an indication of the first zone scene to*  
17 *be transmitted to the first zone player, and iii) causing storage of*  
18 *the first zone scene;*

19 1040. *See supra* '885 claim 1, Limitation 1.6.

20 1326. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior  
21 discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885  
22 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device  
23 than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a  
24 controller" as opposed to a "zone player"), claim limitations 1.4 and 1.6 of Asserted Claim 1 of  
25 the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885  
26 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion  
27 of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the  
28 '885 Patent applies to claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent. In fact,  
Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.6 of  
Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus

1 whether his opinion is that claim limitations 1.4 and 1.6 of Asserted Claim 1 of the '966 Patent  
2 were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr.  
3 Schonfeld never articulates what he considers to be the claimed functions of “i) causing creation  
4 of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first  
5 zone player, and iii) causing storage of the first zone scene” in the Bose Lifestyle 50 System. For  
6 these reasons, I disagree that Dr. Schonfeld’s barebones discussion of claim limitations 1.4 and  
7 1.6 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all  
8 opinions to be expressed and the basis and reasons therefor, which I understand to be the governing  
9 standard for expert reports, and that barebones discussion has prejudiced my ability to fully  
10 discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.6 of Asserted  
11 Claim 1 of the '966 Patent.<sup>58</sup>

12 1327. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
13 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
14 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
15 number of flaws, many of which are applicable to claim limitations 1.4 and 1.6 of Asserted Claim  
16 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
17 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
18 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
19 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
20 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

21 1328. For instance, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System meets  
22 limitation 1.6 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.6 of  
23 Asserted Claim 1 of the '966 Patent) is based in part on functionality that is not related to or  
24 compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 899-  
25 904. Indeed, in addition to relying on setting up a “shared source group” using the “ROOM” and  
26 “HOUSE” buttons of the Personal Music Center of the Bose Lifestyle 50 System (*id.* at ¶ 901

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27 <sup>58</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

(citing BOSE\_SUB-0000001 at 40, 43), which I explained above, Dr. Schonfeld also relies on disclosure related to (i) the Bose Freespace E4 system (*id.* at ¶ 902 (citing BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145) which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50 System, (ii) setting up SA-2 and/or SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose “Lifestyle 18 series II, 28 series II, 38 or 48 home entertainment system” (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)) – not a Bose Lifestyle 50 System that does not have Bose link capability: and (iii) the Bose link communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)) – which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50 System. For these reasons alone, Dr. Schonfeld’s theory is flawed and he has failed to prove that the actual Bose Lifestyle 50 System discloses the claimed “zone scene” functionality of claim limitations 1.4 and 1.6 of Asserted Claim 1 of the ’966 Patent.

1329. Further examples of why Dr. Schonfeld’s analysis is flawed are set forth below, where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld’s alleged Bose Lifestyle 50 System.<sup>59</sup>

#### Actual Bose Lifestyle 50 System

1330. First, when discussing the actual Bose Lifestyle 50 System and claim limitation 1.6 of Asserted Claim 1 of the ’885 Patent, Dr. Schonfeld relies exclusively on the functionality in the Bose Lifestyle 50 System for forming ad-hoc “shared source groups,” which are not the claimed “zone scenes” for all of the reasons I have previously explained in Section XV.C.1.iii.

1331. Second, when discussing the actual Bose Lifestyle 50 System and claim limitation 1.6 of Asserted Claim 1 of the ’885 Patent, Dr. Schonfeld did not identify any “first indication that the first zone player has been added to a first zone scene.” As I previously explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the ’885 Patent, this is not surprising because the

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<sup>59</sup> Note that while I have sometimes separately addressed the shortcomings of the actual Bose Lifestyle 50 System and Dr. Schonfeld’s alleged Bose Lifestyle 50 System with respect to limitations 1.4-1.11, it should be understood that these shortcomings can be considered together depending on how Dr. Schonfeld intends on combining the various Bose products upon which he relies, which is currently unclear.



1 Bose Lifestyle 50 System does not disclose “a first indication that [the Lifestyle player] has been  
2 added to a first zone scene,” as required by limitation 1.6 of the ’885 Patent. And for similar  
3 reasons to those explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the ’885  
4 Patent, the Bose Lifestyle 50 System does not disclose an “indication” of a “first zone scene,” as  
5 required by limitation 1.6 of Asserted Claim 1 of the ’966 Patent.

6 1332. As an initial matter, because a “shared source group” is not a “zone scene” for all  
7 of the reasons explained above, there can’t possibly be an “indication” of a “first zone scene.”

8 1333. Moreover, even setting aside the fundamental differences between a “shared source  
9 group” and a “zone scene,” the Bose Lifestyle 50 System evidence that I have reviewed establishes  
10 that, when a user set up a “shared source group” of Lifestyle players using the Personal Music  
11 Center of the Bose Lifestyle 50 System, the Personal Music Center would communicate with the  
12 centralized Multi-Room Interface (not to the Lifestyle players), which would cause the Multi-  
13 Room Interface to configure itself to distribute the same audio from the same audio source to each  
14 of the rooms so that the same audio could be played back simultaneously via the Lifestyle players.  
15 *See, e.g.* BOSE\_SUB-0000001-55 at 6, 12, 17, 19, 44-45; BOSE\_SUB-0000684-687 at 684-685.  
16 In other words, a Lifestyle player would not receive any information from the Personal Music  
17 Center but instead would merely receive audio from the Multi-Room Interface but audio alone is  
18 not an “indication” of a “shared source group.” Moreover, I have not seen any evidence as to what  
19 information would even be communicated from the Personal Music Center would communicate  
20 with the centralized Multi-Room Interface.

21 1334. Dr. Schonfeld disputes my assertion that the Personal Music Center would only  
22 communicate with the centralized Multi-Room Interface and not the Lifestyle players and states  
23 that the documentation I have relied on “refers to ‘radio links’ that transmits data to and from  
24 playback speakers.” *See* Schonfeld Op. Report at ¶ 734. However, I see no support in these  
25 documents for Dr. Schonfeld’s assertion. Instead, the documents I cite only refer to a “radio link”  
26 between the Personal Music Center and the Multi-Room Interface. *See, e.g.* BOSE\_SUB-  
27 0000001-55 at 19 (“When batteries are first installed in the music center; it sets up a radio-  
28 frequency link with the closest multi-room interface.... If the music center continuously displays

1 "NO RESPONSE," you need to try to establish its link with the multi-room interface again."), 45  
2 ("To add a new music center to your system, follow the setup instructions on page 17. Be sure to  
3 install the batteries and turn it on for the first time close to the multi-room interface to allow the  
4 new music center to set up a radio frequency link with your system. If the multi-room interface is  
5 not plugged in or the music center is out of range, the display indicates NO RESPONSE."),  
6 BOSE\_SUB-0000684-687 at 685 (describing the "Multi-room interface" as a "[s]mall, hideaway  
7 connection box transmits data to, and receives data from, the Personal music center via a radio  
8 data link.").

9 1335. Third, even setting aside the fundamental differences between a "shared source  
10 group" and a "zone scene," Dr. Schonfeld has not identified (and I have not seen) any evidence of  
11 the Personal Music Center or any other device in the Bose Lifestyle 50 System "causing storage"  
12 of a "shared source group."

13 1336. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
14 Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be  
15 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
16 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
17 / 1.6 of Asserted Claim 1 of the '966 Patent.

18 Dr. Schonfeld's alleged Bose Lifestyle 50 System

19 1337. First, in his section discussing his alleged version of the Bose Lifestyle 50 System  
20 and claim limitation 1.6 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies on  
21 functionality related to (i) the Bose Freespace E4 system (Schonfeld Op. Report at ¶ 902 (citing  
22 BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145), (ii) setting up SA-2 and/or  
23 SA-3 Amplifiers in "additional rooms" using Bose link technology of a Bose "Lifestyle 18 series  
24 II, 28 series II, 38 or 48 home entertainment system" (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-  
25 360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)), and (iii) the Bose link  
26 communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)). However,  
27 as I have already explained above in Section XV.C.1.iii, the functionality that he relies on for these  
28 various Bose products does not disclose the claimed "zone scene" functionality.

1           1338. Second, although not clear, Dr. Schonfeld appears to be asserted that the “first  
2 indication that the first zone player has been added to a first zone scene” required by limitation 1.6  
3 of the ’885 Patent is disclosed by the Bose Link communication protocol based on a theory that  
4 “the Bose Link communication protocol allows for an indication that [Lifestyle players in]  
5 additional rooms ... have been added to the media center.” *See* Schonfeld Op. Report at ¶ 904.  
6 However, as I previously explained in my ’885 Rebuttal Report regarding Asserted Claim 1 of the  
7 ’885 Patent, I disagree that the Bose Link communication protocol discloses “a first indication that  
8 [the Lifestyle player] has been added to a first zone scene,” as required by limitation 1.6 of the  
9 ’885 Patent. And for similar reasons to those explained in my ’885 Rebuttal Report regarding  
10 Asserted Claim 1 of the ’885 Patent, it is my opinion that the Bose Link communication protocol  
11 does not disclose an “indication” of a “first zone scene,” as required by limitation 1.6 of Asserted  
12 Claim 1 of the ’966 Patent.

13           1339. For instance, in the “Understanding Bose link” document cited by Dr. Schonfeld,  
14 the only information transmitted from a Bose link enabled media center to a Lifestyle player that  
15 is a Bose link expansion product (e.g., an SA-2 or SA-3 Amplifier) is “on/off, volume and source  
16 commands along with audio.” *See* BOSE\_SUB-0000594-601 at 595. The “Understanding Bose  
17 link” document also states that “[e]ach time a source change or on/off command is sent, the  
18 expansion product sends information back to the media center letting it know that it is still on (or  
19 off) and in the same room.” *Id.* These disclosures are consistent with Dr. Schonfeld’s  
20 characterization: “The Bose Link connection is essentially a conversation between the media  
21 center and the expansion device. The media center sends on/off, volume and source change  
22 commands along with audio to the zones. The zones then respond by sending information back to  
23 the media center to let it know that the zone is still active.” Schonfeld Op. Report at ¶ 904.  
24 However, in my opinion, none of this information that is allegedly exchanged between a Bose link  
25 enabled media center and a Lifestyle player that is a Bose link expansion product amounts to an  
26 “indication” of any sort of group of Lifestyle players, let alone an “indication” of a “zone scene.”

27           1340. Dr. Schonfeld’s assertion to the contrary appears to be based on an incorrect  
28 interpretation of what is required to constitute an “indication” of a “zone scene.” In particular, Dr.

1 Schonfeld points to the Court's finding that an "indication" of a "zone scene" need not identify the  
2 other "zone player(s)" within the "zone scene" – which is true – but he then jumps to the conclusion  
3 that *any* message sent to a "zone player" at the time that a "zone scene" is created would constitute  
4 an "indication" of the "zone scene" regardless of the contents of that message. *See* Schonfeld Op.  
5 Report at ¶ 900. In my opinion, this is not how a POSITA would interpret the phrase "indication"  
6 of a "zone scene" in view of the Court's July 21, 2022 order. Rather, a POSITA would understand  
7 that, in order for a message to constitute an "indication" of a "zone scene," the message must  
8 contain some information about the "zone scene" that enables the Lifestyle player to recognize  
9 that it has been added to the "zone scene," such as an identifier of the "zone scene." On/off,  
10 volume, and source change commands does not meet this requirement.

11 1341. Moreover, to the extent that Dr. Schonfeld is asserting that the alleged "indication"  
12 is sent from the Lifestyle player to the Bose link enabled media center, such a theory would fail  
13 for the additional reason that the claim requires the "indication" to be transmitted to the "first zone  
14 player." The Bose link enabled media center cannot possibly be the "first zone player" because  
15 there is only a single Bose link enabled media center in any given system and thus a Bose link  
16 enabled media center could not be added to a "zone scene" with another Bose link enabled media  
17 center. *See, e.g.,* BOSE\_SUB-0000361-448 at 384 (illustrating SA-2 and SA-3 amplifiers  
18 connected to a single Bose link enabled media center).

19 1342. I also note that at paragraph 904, Dr. Schonfeld also asserts that "[i]mportantly, ...  
20 the media center will not acknowledge commands from any zone that is not targeted or invoked."  
21 *See* Schonfeld Op. Report at ¶ 904. I fail to see how this statement has anything to do with a  
22 Lifestyle player receiving an "indication" of a "zone scene."

23 1343. Third, Dr. Schonfeld's discussion of limitation 1.6 of Asserted Claim 1 of the '966  
24 Patent in connection with (i) the Bose Freespace E4 system (Schonfeld Op. Report at ¶ 902 (citing  
25 BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145), (ii) setting up SA-2 and/or  
26 SA-3 Amplifiers in "additional rooms" using Bose link technology of a Bose "Lifestyle 18 series  
27 II, 28 series II, 38 or 48 home entertainment system" (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-  
28 360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)), and (iii) the Bose link

1 communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)) does not  
2 include anything about a “computing device” “causing storage” of a “shared source group” or  
3 some other group of Lifestyle players, let alone “causing storage” of a “zone scene.”

4 1344. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
5 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
6 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
7 in Dr. Schonfeld’s alleged Bose Lifestyle 50 System did not have the functional capability required  
8 by limitations 1.4 / 1.6 of Asserted Claim 1 of the ’966 Patent.

9 **vi. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.7**

10 1345. When read together, limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent  
11 require the “computing device” to be encoded with executable “program instructions” that cause  
12 the computing device to perform the following function(s):

13 [1.4] while serving as a controller for a networked media playback system comprising a  
14 first zone player and at least two other zone players, wherein the first zone player is  
15 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

16 ...

17 [1.7] receiving a second request to create a second zone scene comprising a  
18 second predefined grouping of zone players including at least the first zone player  
19 and a third zone player that are to be configured for synchronous playback of media  
when the second zone scene is invoked, wherein the third zone player is different  
than the second zone player;

20 1346. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

21 1347. As explained above, the evidence I have reviewed establishes that the Personal  
22 Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on) in  
23 the Bose Lifestyle 50 System was only capable of receiving requests to form ad-hoc “shared source  
24 groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this  
25 reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld  
26 may be relying on such as the combination of the Personal Music Center and the Multi-Room  
27 Interface) in the Bose Lifestyle 50 System did not have the required functional capability to  
28



1 “receiv[e] a *second request to create a second zone scene* comprising a second predefined grouping  
2 of [Lifestyle players] including at least the first [Lifestyle player] and a third [Lifestyle player] that  
3 are to be configured for synchronous playback of media when the second zone scene is invoked.”

4 1348. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that  
5 is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a Sonos  
6 controller would have never received any “request to create” the hard-coded “HOUSE” option.

7 1349. Further yet, claim limitations 1.4 and 1.7 require the “computing device” to  
8 “receiv[e] [the] second request to create [the] second zone scene” at a time when the “first zone  
9 player” is “operating in a standalone mode,” which means that the created “first zone scene” must  
10 be in an inactive state at the time that this functionality is carried out (otherwise, the “first zone  
11 player” could not be in “standalone mode”). However, in the Bose Lifestyle 50 System, it was not  
12 possible for an ad-hoc “shared source group” to exist in an inactive state in which the members of  
13 the “shared source group” could be used for individual playback while the “shared source group”  
14 remained available for selection by a user; rather, an ad-hoc “shared source group” only remained  
15 in existence for the temporary period of time during which it was activated, and once deactivated,  
16 the “shared source group” would cease to exist.

17 1350. Despite this clear evidence establishing that the Personal Music Center (and any  
18 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
19 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
20 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations  
21 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent were either disclosed or rendered obvious by  
22 the Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038, 1041. However, I find Dr.  
23 Schonfeld’s opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.7 of  
24 Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

25 1351. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
26 Lifestyle 50 System and claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ’966 Patent is  
27 shown in the screenshots below from Dr. Schonfeld’s Opening Report:  
28

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(viii) *Limitation 1.7 receiving a second request to create a second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player;*

1041. *See supra* '885 claim 1, Limitation 1.6, 1.7.

1352. As these screenshots demonstrate, Dr. Schonfeld has not provided any analysis of how the Bose Lifestyle 50 System allegedly meets these limitations of Asserted Claim 1 of the '966. Instead, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that claim limitations 1.4 and 1.7 of Asserted Claim 1 of the '966 Patent were only *rendered obvious*

1 by the Bose Lifestyle 50 System. And along similar lines, Dr. Schonfeld never once articulates  
2 what he considers to be the claimed “second request to create a second zone scene” in the Bose  
3 Lifestyle 50 System. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of  
4 claim limitations 1.4 and 1.7 of Asserted Claim 1 of the ‘966 Patent amounts to a detailed and  
5 complete statement of all opinions to be expressed and the basis and reasons therefor, which I  
6 understand to be the governing standard for expert reports, and that barebones discussion has  
7 prejudiced my ability to fully discern, assess, and respond to his opinions regarding claim  
8 limitations 1.4 and 1.7 of Asserted Claim 1 of the ‘966 Patent.<sup>60</sup>

9 1353. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
10 ‘885 Rebuttal Report regarding Asserted Claim 1 of the ‘885 Patent, Dr. Schonfeld’s analysis of  
11 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the ‘885 Patent suffers from a  
12 number of flaws, many of which are applicable to claim limitations 1.4 and 1.7 of Asserted Claim  
13 1 of the ‘966 Patent as well – including that he relies on functionality that is not even part of the  
14 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
15 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
16 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
17 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

18 1354. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
19 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
20 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
21 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
22 / 1.7 of Asserted Claim 1 of the ‘966 Patent.

23 **vii. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.8**

24 1355. When read together, limitations 1.4 and 1.8 of Asserted Claim 1 of the ‘966 Patent  
25 require the “computing device” to be encoded with executable “program instructions” that cause  
26 the computing device to perform the following function(s):

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27 <sup>60</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

...

[1.8] based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;

1356. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1357. As explained above, the evidence I have reviewed establishes that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System was only capable of forming ad-hoc “shared source groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other controller that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have the required functional capability to “i) caus[e] creation of the second zone scene, ii) caus[e] an indication of the second zone scene to be transmitted to the first [Lifestyle player], and iii) caus[e] storage of the second zone scene.”

1358. Moreover, the hard-coded “HOUSE” option of the Bose Lifestyle 50 System that is relied upon by Dr. Schonfeld above fails to meet these limitations for the additional reason that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) of the Bose Lifestyle 50 System would have never received any “request to create” the hard-coded “HOUSE” option and also would have never “caus[ed] creation of” the hard-coded “HOUSE” option, “caus[ed] an indication of” the hard-coded “HOUSE” option to be “transmitted to the first [Lifestyle player],” or “caus[ed] storage of” the hard-coded “HOUSE” option.

1359. Further, claim limitations 1.4 and 1.8 require the “computing device” to carry out the claimed actions with respect to a “second zone scene” at a time when the “first zone player” is

1 “operating in a standalone mode,” which means that the created “first zone scene” must be in an  
2 inactive state at the time that this functionality is carried out (otherwise, the “first zone player”  
3 could not be in “standalone mode”). However, in the Bose Lifestyle 50 System, it was not possible  
4 for an ad-hoc “shared source group” to exist in an inactive state in which the members of the  
5 “shared source group” could be used for individual playback while the “shared source group”  
6 remained available for selection by a user; rather, an ad-hoc “shared source group” only remained  
7 in existence for the temporary period of time during which it was activated, and once deactivated,  
8 the “shared source group” would cease to exist.

9 1360. Further yet, in the context of the surrounding claim language, a POSITA would  
10 understand that claim limitations 1.4 and 1.8 require the “computing device” to carry out the  
11 claimed actions with respect to a “second zone scene” that includes at least one common “zone  
12 player” with the “first zone scene” (i.e., the claimed “first zone player”) but without modifying or  
13 destroying the “first zone scene” that was created, such that the overlapping “first zone scene” and  
14 “second zone scene” can thereafter both be “display[ed]” to a user for selection. However, in the  
15 Bose Lifestyle 50 System, it was not possible to create a new ad-hoc “shared source group”  
16 comprising a Lifestyle player that was already a member of another preexisting “shared source  
17 group” without first modifying or destroying that preexisting “shared source group.” For this  
18 additional reason, the Personal Music Center (and any other alleged “computing device” that Dr.  
19 Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-  
20 Room Interface) of the Bose Lifestyle 50 System did not have the required functional capability  
21 to “i) caus[e] creation of the second zone scene, ii) caus[e] an indication of the first zone scene to  
22 be transmitted to the first [Lifestyle player], and iii) caus[e] storage of the second zone scene,”  
23 where the “second zone scene” includes at least one common “Lifestyle player” with the created  
24 “first zone scene.”

25 1361. Despite this clear evidence establishing that the Personal Music Center (and any  
26 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
27 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
28 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations



1 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by  
2 the Bose Lifestyle 50. See Schonfeld Op. Report at ¶¶ 1038, 1042. However, I find Dr.  
3 Schonfeld's opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.8 of  
4 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

5 1362. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
6 Lifestyle 50 System and claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent is  
7 shown in the screenshots below from Dr. Schonfeld's Opening Report:

8  
9 (v) *Limitation 1.4 "while serving as a controller for a networked media*  
10 *playback system comprising a first zone player and at least two*  
11 *other zone players, wherein the first zone player is operating in a*  
12 *standalone mode in which the first zone player is configured to play*  
13 *back media individually."*

14 1038. See *supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network  
15 interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10,  
16 "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

17 (ix) *Limitation 1.8 based on the second request, i) causing creation of*  
18 *the second zone scene, ii) causing an indication of the second zone*  
19 *scene to be transmitted to the first zone player, and iii) causing*  
20 *storage of the second zone scene;*

21 1042. See *supra* '885 claim 1, Limitation 1.6, 1.7.

22 1363. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior  
23 discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885  
24 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device  
25 than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a  
26 controller" as opposed to a "zone player"), claim limitations 1.4 and 1.8 of Asserted Claim 1 of  
27 the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885  
28 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion  
of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the  
'885 Patent applies to claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent. In fact,

1 Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.8 of  
2 Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus  
3 whether his opinion is that claim limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent  
4 were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr.  
5 Schonfeld never articulates what he considers to be the claimed functions of “i) causing creation  
6 of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to  
7 the first zone player, and iii) causing storage of the second zone scene” in the Bose Lifestyle 50  
8 System. For these reasons, I disagree that Dr. Schonfeld’s barebones discussion of claim  
9 limitations 1.4 and 1.8 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete  
10 statement of all opinions to be expressed and the basis and reasons therefor, which I understand to  
11 be the governing standard for expert reports, and that barebones discussion has prejudiced my  
12 ability to fully discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.8  
13 of Asserted Claim 1 of the '966 Patent.<sup>61</sup>

14 1364. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
15 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
16 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
17 number of flaws, many of which are applicable to claim limitations 1.4 and 1.8 of Asserted Claim  
18 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
19 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
20 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
21 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
22 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

23 1365. For instance, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System meets  
24 limitation 1.7 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.8 of  
25 Asserted Claim 1 of the '966 Patent) is based on functionality that is not related to or compatible  
26 with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 905-907. Indeed,

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27 <sup>61</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 after incorporating his discussion of limitation 1.6 of Asserted Claim 1 of the '885 Patent (which  
2 also based on functionality that is not related to or compatible with the actual Bose Lifestyle 50  
3 System itself, as explained above), Dr. Schonfeld relies exclusively on functionality related to the  
4 Bose link communication protocol, which, as explained above, is not utilized by or compatible  
5 with the Bose Lifestyle 50 System. *Id.* at ¶ 907 (citing BOSE\_SUB-0000594-601 at 597). For  
6 these reasons alone, Dr. Schonfeld's theory is flawed and he has failed to prove that the actual  
7 Bose Lifestyle 50 System discloses the claimed "zone scene" functionality of claim limitations 1.4  
8 and 1.8 of Asserted Claim 1 of the '966 Patent.

9 1366. Further examples of why Dr. Schonfeld's analysis is flawed are set forth below,  
10 where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld's  
11 alleged Bose Lifestyle 50 System.

12 Actual Bose Lifestyle 50 System

13 1367. First, when discussing the actual Bose Lifestyle 50 System and claim limitations  
14 1.6 and 1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the  
15 functionality in the Bose Lifestyle 50 System for forming ad-hoc "shared source groups," which  
16 are not the claimed "zone scenes" for all of the reasons I have previously explained in Section  
17 XV.C.1.iii.

18 1368. Second, when discussing the actual Bose Lifestyle 50 System and claim limitation  
19 1.7 of Asserted Claim 1 of the '885 Patent (via the incorporation of his discussion of limitation 1.6  
20 of Asserted Claim 1 of the '885 Patent), Dr. Schonfeld did not identify any "second indication that  
21 the first zone player has been added to a second zone scene." And for the same reasons that I  
22 already explained above in connection with the "indication" of the "first zone scene" of limitation  
23 1.6 of Asserted Claim 1 of the '966 Patent, the Bose Lifestyle 50 System does not disclose an  
24 "indication" of the "second zone scene," as required by limitation 1.8 of Asserted Claim 1 of the  
25 '966 Patent.

26 1369. Third, even setting aside the fundamental differences between a "shared source  
27 group" and a "zone scene," Dr. Schonfeld has not identified (and I have not seen) any evidence of  
28 the Personal Music Center or any other device in the Bose Lifestyle 50 System "causing storage"

1 of a “shared source group.”

2 1370. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
3 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
4 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
5 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
6 / 1.8 of Asserted Claim 1 of the ’966 Patent.

7 Dr. Schonfeld’s alleged Bose Lifestyle 50 System

8 1371. First, I incorporate my discussion of limitation 1.6 of Asserted Claim 1 of the ’966  
9 Patent as it relates to Dr. Schonfeld’s alleged Bose Lifestyle 50 System, which explains that (1)  
10 the functionality Dr. Schonfeld relies on related to (i) the Bose Freespace E4 system, (ii) setting  
11 up SA-2 and/or SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose  
12 “Lifestyle 18 series II, 28 series II, 38 or 48 home entertainment system,” and (iii) the Bose link  
13 communication protocol does not disclose the claimed “zone scene” functionality; (2) the Bose  
14 Link communication protocol does not disclose the transmission of an “indication” of any sort of  
15 group of Lifestyle players, let alone an “indication” of a “zone scene”; and (3) the functionality  
16 that Dr. Schonfeld relies on related to (i) the Bose Freespace E4 system, (ii) setting up SA-2 and/or  
17 SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose “Lifestyle 18 series  
18 II, 28 series II, 38 or 48 home entertainment system,” and (iii) the Bose link communication  
19 protocol does not disclose a “computing device” “causing storage” of a “shared source group” or  
20 some other group of Lifestyle players, let alone “causing storage” of a “zone scene.”

21 1372. Second, although unclear, Dr. Schonfeld appears to assert that his alleged Bose  
22 Lifestyle 50 System discloses a “computing device” that is programmed with functional capability  
23 for causing the creation of two overlapping “zone scenes” that co-exist with one another and are  
24 both available for selection by a user at the same time based exclusively on the following theory:  
25 “[T]he Bose Lifestyle expressly teaches managing two separate streaming sources at one time,  
26 such that room A can operate on stream 1, and room B can operate stream 2, for example.”  
27 Schonfeld Op. Report at ¶ 907. However, this theory is flawed for all the reasons I explained  
28 above in Section XV.C.1.iii.

1373. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in Dr. Schonfeld's alleged Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4 / 1.8 of Asserted Claim 1 of the '966 Patent.

**viii. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.9**

1374. When read together, limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent require the "computing device" to be encoded with executable "program instructions" that cause the computing device to perform the following function(s):

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

...

[1.9] displaying a representation of the first zone scene and a representation of the second zone scene; and;

1375. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1376. As explained above, the evidence I have reviewed establishes that the Bose Lifestyle 50 System only provided users with the ability to form and use ad-hoc "shared source groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any functional capability for "displaying a representation" of a "zone scene" – let alone the required functional capability for "displaying a representation of the first zone scene and a representation of the second zone scene" in a manner that allows a user to select between them for purposes of requesting invocation.

1377. Further, as explained above, the "first zone scene" and the "second zone scene" for which the "representation[s]" are "display[ed]" are required to overlap with one another by including at least one common "zone player" (i.e., the claimed "first zone player"). However, in



1 the Bose Lifestyle 50 System, it was not possible for two ad-hoc “shared source groups” to overlap  
2 with one another; rather, each Lifestyle player could only be a member of a single “shared source  
3 group” at any given time. Thus, for this additional reason, a Sonos controller in the Bose Lifestyle  
4 50 System did not have the required functional capability to “display[] a representation of the first  
5 zone scene and a representation of the second zone scene.”

6 1378. Further yet, claim limitations 1.4 and 1.9 require the “computing device” to  
7 “display[] a representation of the first zone scene and a representation of the second zone scene”  
8 at a time when the “first zone player” is “operating in a standalone mode,” which means that the  
9 “first zone scene” and the “second zone scene” both must be in an inactive state at the time that  
10 the “representation[s]” are “display[ed]” (otherwise, the “first zone player” could not be in  
11 “standalone mode”). However, in the Bose Lifestyle 50 System, it was not possible for an ad-hoc  
12 “saved source group” to exist in an inactive state in which the members of the “shared source  
13 group” could be used for individual playback while the “shared source group” remained available  
14 for selection by a user; rather, an ad-hoc “shared source group” only remained in existence for the  
15 temporary period of time during which it was activated, and once deactivated, the “shared source  
16 group” would cease to exist. Moreover, while the Personal Music System was capable of  
17 displaying the hard-coded “HOUSE” option at a time when a Lifestyle player was operating in  
18 standalone mode, (i) the hard-coded “HOUSE” option was not a “zone scene” for the reasons  
19 explained above and (ii) the hard-coded “HOUSE” option alone cannot possibly meet the claimed  
20 requirement of displaying “representations” of multiple overlapping “zone scenes.”

21 1379. Despite this clear evidence establishing that the Personal Music Center (and any  
22 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
23 of the Personal Music Center and the Multi-Room Interface) the Bose Lifestyle 50 System did not  
24 have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4  
25 and 1.9 of Asserted Claim 1 of the '966 Patent were either disclosed or rendered obvious by the  
26 Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038, 1043. However, I find Dr.  
27 Schonfeld’s opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.8 of  
28 Asserted Claim 1 of the '966 Patent to be flawed for several reasons.

1380. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent is

(v) *Limitation 1.4 "while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:"*

1038. *See supra* '885 claim 1, "network device" disclosure in, e.g., 1.6, 1.7, 1.9, "network interface" disclosure in, e.g., 1.1., "zone player" disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, "standalone mode" disclosure in e.g., 1.5, 1.8, 1.10.

(x) *Limitation 1.9 displaying a representation of the first zone scene and a representation of the second zone scene; and*

1043. *See supra* '885 claim 1, Limitations 1.6 and 1.7.

shown in the screenshots below from Dr. Schonfeld's Opening Report:

1381. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that claim limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr. Schonfeld never articulates what he considers to be the displayed "representation of the first zone scene" or the displayed "representation of the second zone scene" in the Bose Lifestyle 50 System.

1 For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitations 1.4  
2 and 1.9 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all  
3 opinions to be expressed and the basis and reasons therefor, which I understand to be the governing  
4 standard for expert reports, and that barebones discussion has prejudiced my ability to fully  
5 discern, assess, and respond to his opinions regarding claim limitations 1.4 and 1.9 of Asserted  
6 Claim 1 of the '966 Patent.<sup>62</sup>

7 1382. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
8 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
9 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
10 number of flaws, many of which are applicable to claim limitations 1.4 and 1.9 of Asserted Claim  
11 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
12 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
13 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
14 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
15 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

16 1383. For instance, as explained above, Dr. Schonfeld's opinion that the Bose Lifestyle  
17 50 System meets limitations 1.6 and 1.7 of Asserted Claim 1 of the '885 Patent (upon which he  
18 relies for limitation 1.9 of Asserted Claim 1 of the '966 Patent) is based on functionality that is not  
19 related to or compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report  
20 at ¶¶ 899-907. For these reasons alone, Dr. Schonfeld's theory is flawed and he has failed to prove  
21 that the actual Bose Lifestyle 50 System discloses the claimed “zone scene” functionality of claim  
22 limitations 1.4 and 1.9 of Asserted Claim 1 of the '966 Patent.

23 1384. Further examples of why Dr. Schonfeld's analysis is flawed are set forth below,  
24 where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld's  
25 alleged Bose Lifestyle 50 System.

26 Actual Bose Lifestyle 50 System

27 \_\_\_\_\_  
28 <sup>62</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
in his Opening Report, I expressly reserve my right to respond.

1 1385. First, when discussing the actual Bose Lifestyle 50 System and claim limitations  
2 1.6 and 1.7 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies exclusively on the  
3 functionality in the Bose Lifestyle 50 System for forming ad-hoc “shared source groups,” which  
4 are not the claimed “zone scenes” for all of the reasons I have previously explained in Section  
5 XV.C.1.iii.

6 1386. Second, even setting aside the fundamental differences between a “shared source  
7 group” and a “zone scene,” Dr. Schonfeld has not identified (and I have not seen) any evidence of  
8 the Personal Music Center or any other device in the Bose Lifestyle 50 System displaying  
9 representations of two different “shared source groups” having a common member in a manner  
10 that allows a user to select between the two “shared source groups” for purposes of requesting  
11 invocation. Indeed, although unclear, to the extent Dr. Schonfeld is relying on a “shared source  
12 group” that is created using the “ROOM” button as one of the two overlapping “zone scenes,” I  
13 have not seen any evidence that the “indicators” for such a “shared source group” (e.g., **A B**)  
14 that are displayed by the Personal Music Center are selectable for any purpose, let alone for  
15 purposes of requesting invocation. *See* BOSE\_SUB-0000001 at 44.

16 1387. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
17 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
18 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
19 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
20 / 1.9 of Asserted Claim 1 of the '966 Patent.

21 Dr. Schonfeld’s alleged Bose Lifestyle 50 System

22 1388. First, in his section discussing his alleged version of the Bose Lifestyle 50 System  
23 and claim limitation 1.6 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies on  
24 functionality related to (i) the Bose Freespace E4 system (Schonfeld Op. Report at ¶ 902 (citing  
25 BOSE\_SUB-0000062 at 122 and BOSE\_SUB-0000140 at 144-145), (ii) setting up SA-2 and/or  
26 SA-3 Amplifiers in “additional rooms” using Bose link technology of a Bose “Lifestyle 18 series  
27 II, 28 series II, 38 or 48 home entertainment system” (*id.* at ¶ 903 (citing BOSE\_SUB-0000274-  
28 360 at 289, 290, 297 and BOSE\_SUB-0000361-448 at 385-386)), and (iii) the Bose link

1 communication protocol (*id.* at ¶ 904 (citing BOSE\_SUB-0000594-601 at 595-596)). However,  
2 as I have already explained above in Section XV.C.1.iii, the functionality that he relies on for these  
3 various Bose products does not disclose the claimed “zone scene” functionality.

4 1389. Second, Dr. Schonfeld has not identified (and I have not seen) any evidence of a  
5 “computing device” in Dr. Schonfeld’s alleged Bose Lifestyle 50 System displaying  
6 representations of two different “shared source groups” having a common member in a manner  
7 that allows a user to select between the two “shared source groups” for purposes of requesting  
8 invocation.

9 1390. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
10 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
11 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
12 in Dr. Schonfeld’s alleged Bose Lifestyle 50 System did not have the functional capability required  
13 by limitations 1.4 / 1.9 of Asserted Claim 1 of the ’966 Patent.

14 **ix. The Bose Lifestyle 50 System Did Not Meet Limitations 1.4 / 1.10**

15 1391. When read together, limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent  
16 require the “computing device” to be encoded with executable “program instructions” that cause  
17 the computing device to perform the following function(s):

18 **[1.4]** while serving as a controller for a networked media playback system comprising a  
19 first zone player and at least two other zone players, wherein the first zone player is  
20 operating in a standalone mode in which the first zone player is configured to play back  
media individually:

21 ...

22 **[1.10]** while displaying the representation of the first zone scene and the  
23 representation of the second zone scene, receiving a third request to invoke the first  
zone scene; and

24 1392. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

25 1393. As explained above, the evidence I have reviewed establishes that the Bose  
26 Lifestyle 50 System only provided users with the ability to form and use ad-hoc “shared source  
27 groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this  
28



1 reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld  
2 may be relying on such as the combination of the Personal Music Center and the Multi-Room  
3 Interface) in the Bose Lifestyle 50 System did not have any functional capability for either  
4 “displaying a representation” of a “zone scene” or receiving a “request to invoke” a “zone scene”  
5 – let alone the required functional capability for “while displaying the representation of the first  
6 zone scene and the representation of the second zone scene, receiving a third request to invoke the  
7 first zone scene.”

8 1394. Further, as explained above, the “first zone scene” and the “second zone scene” for  
9 which the “representation[s]” are “display[ed]” are required to overlap with one another by  
10 including at least one common “zone player” (i.e., the claimed “first zone player”). However, in  
11 the Bose Lifestyle 50 System, it was not possible for two ad-hoc “shared source groups” to overlap  
12 with one another; rather, each Lifestyle player could only be a member of a single “shared source  
13 group” at any given time. Thus, for this additional reason, the Personal Music Center (and any  
14 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
15 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
16 not have the required functional capability to “while displaying the representation of the first zone  
17 scene and the representation of the second zone scene, receiving a third request to invoke the first  
18 zone scene.”

19 1395. Further yet, claim limitations 1.4 and 1.10 require the “computing device” to be  
20 “displaying the representation of the first zone scene and the representation of the second zone  
21 scene” and to “receiv[e] a third request to invoke the first zone scene” at a time when the “first  
22 zone player” is “operating in a standalone mode,” which means that the “first zone scene” and the  
23 “second zone scene” both must be in an inactive state at the time that this functionality is carried  
24 out (otherwise, the “first zone player” could not be in “standalone mode”). However, in the Bose  
25 Lifestyle 50 System, it was not possible for an ad-hoc “shared source group” to exist in an inactive  
26 state in which the members of the “shared source group” could be used for individual playback  
27 while the “shared source group” remained available for selection by a user; rather, an ad-hoc  
28 “shared source group” only remained in existence for the temporary period of time during which

1 it was activated, and once deactivated, the “shared source group” would cease to exist. Moreover,  
2 while the Personal Music Center was capable of displaying the hard-coded “HOUSE” option at a  
3 time when a Lifestyle player was operating in standalone mode, (i) the hard-coded “HOUSE”  
4 option was not a “zone scene” for the reasons explained above and (ii) the hard-coded “HOUSE”  
5 option alone cannot possibly meet the claimed requirement of displaying “representations” of  
6 multiple overlapping “zone scenes.”

7 1396. Still further, in the context of the surrounding claim language, a POSITA would  
8 understand that claim limitations 1.4 and 1.10 require the “computing device” to receive the  
9 “request to invoke the first zone scene” at some point in time that is later than when it received the  
10 “request to create [the] first zone scene” and the “first zone scene” was created based on that  
11 “request.” Indeed, at a minimum, there must be a time gap between the time when the “computing  
12 device” received the “request to create [the] first zone scene” and the time when the “computing  
13 device” received the “request to invoke the first zone scene” that is long enough to allow (i) the  
14 “first zone scene” to be created, (ii) the “computing device” to display “representation[s]” of the  
15 “first zone scene” as well as the “second zone scene,” and (iii) a user to view the displayed  
16 “representation[s]” of the “first zone scene” and “second zone scene” and then input the “request  
17 to invoke the first zone scene.” However, in the Bose Lifestyle 50 System, the Personal Music  
18 Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as  
19 the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle  
20 50 System would have only received a single request that served to both create and invoke a  
21 “shared source group” – it would have never received an initial “request to create” a “shared source  
22 group” followed by some later, separate “request to invoke” the “shared source group.” This is  
23 because an ad-hoc “shared source group” was automatically invoked at the time of its creation and  
24 then only remained in existence for the temporary period of time during which it was in an active  
25 state, after which time the “shared source group” would cease to exist. Thus, in the Bose Lifestyle  
26 50 System, there would have never been a period of time during which a “shared source group”  
27 was created and in existence but was in an inactive, uninvoked state such that a user was presented  
28 with an option to “request to invoke” the “shared source group.”

1397. Despite this clear evidence establishing that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) the Bose Lifestyle 50 System did not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent were either disclosed or rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op. Report at ¶¶ 1038, 1044. However, I find Dr. Schonfeld’s opinions regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent to be flawed for several reasons.

1398. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose Lifestyle 50 System and claim limitations 1.4 and 1.10 of Asserted Claim 1 of the ’966 Patent is shown in the screenshots below from Dr. Schonfeld’s Opening Report:

(v) *Limitation 1.4 “while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:”*

1038. *See supra* ‘885 claim 1, “network device” disclosure in, e.g., 1.6, 1.7, 1.9, “network interface” disclosure in, e.g., 1.1., “zone player” disclosure in e.g., preamble, 1.1, 1.4-1.7, 1.9-1.10, “standalone mode” disclosure in e.g., 1.5, 1.8, 1.10.

(xi) *Limitation 1.10 while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and*

1044. *See supra* ‘885 claim 1, Limitation 1.9.

1399. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the ’885 Patent. However, the Asserted Claims of the ’966 Patent are directed to a different type of device than Asserted Claim 1 of the ’885 Patent (a “computing device” configured to “serv[e] as a controller” as opposed to a “zone player”), claim limitations 1.4 and 1.10 of Asserted Claim 1 of

1 the '966 Patent use different claim language than the limitations of Asserted Claim 1 of the '885  
2 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion  
3 of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the  
4 '885 Patent applies to claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent. In  
5 fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitations 1.4 and 1.10 of  
6 Asserted Claim 1 of the '966 Patent were actually *disclosed* by the Bose Lifestyle 50 System versus  
7 whether his opinion is that claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent  
8 were only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr.  
9 Schonfeld never articulates what he considers to be the displayed “representation of the first zone  
10 scene,” the displayed “representation of the second zone scene,” or the “third request to invoke the  
11 first zone scene” in the Bose Lifestyle 50 System. For these reasons, I disagree that Dr.  
12 Schonfeld’s barebones discussion of claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966  
13 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis  
14 and reasons therefor, which I understand to be the governing standard for expert reports, and that  
15 barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions  
16 regarding claim limitations 1.4 and 1.10 of Asserted Claim 1 of the '966 Patent.<sup>63</sup>

17 1400. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
18 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld’s analysis of  
19 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
20 number of flaws, many of which are applicable to claim limitations 1.4 and 1.10 of Asserted Claim  
21 1 of the '966 Patent as well – including that he relies on functionality that is not even part of the  
22 actual Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various  
23 aspects of these claim limitations, and that his analysis is premised on both an incorrect  
24 interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading  
25 characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

26 1401. For instance, Dr. Schonfeld’s opinion that the Bose Lifestyle 50 System meets

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27 <sup>63</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 limitation 1.9 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.10 of  
2 Asserted Claim 1 of the '966 Patent) is based in part on functionality that is not related to or  
3 compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op. Report at ¶¶ 954-  
4 959. Indeed, Dr. Schonfeld relies on functionality related to the Bose link communication  
5 protocol, which, as explained above, is not utilized by or compatible with the Bose Lifestyle 50  
6 System. *Id.* at ¶ 956 (citing BOSE\_SUB-0000594-601 at 595-597). For these reasons alone, Dr.  
7 Schonfeld's theory is flawed and he has failed to prove that the actual Bose Lifestyle 50 System  
8 discloses the claimed "zone scene" functionality of claim limitations 1.4 and 1.10 of Asserted  
9 Claim 1 of the '966 Patent.

10 1402. Further examples of why Dr. Schonfeld's analysis is flawed are set forth below,  
11 where I have separated reasons related to the actual Bose Lifestyle 50 System and Dr. Schonfeld's  
12 alleged Bose Lifestyle 50 System.

13 Actual Bose Lifestyle 50 System

14 1403. When discussing the actual Bose Lifestyle 50 System and claim limitation 1.9 of  
15 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld cites disclosure about the Personal Music  
16 Center of the Bose Lifestyle 50 System and states that "a user may select a synchronization group  
17 for playback using the Room button [of the Personal Music Center], and use the playback controls  
18 to cause Bose LifeStyle to operate as a synchronous playback group." *See* Schonfeld Op. Report  
19 at ¶ 955 (citing BOSE\_SUB-0000001-55 at 43). Although, unclear, Dr. Schonfeld appears to be  
20 suggesting that the Personal Music Center discloses the "network device" of limitation 1.9 and  
21 that, in response to a selection made using the "Room button" or in response to a user "us[ing]  
22 playback controls," the Personal Music Center and/or the Multi-Room Interface transmits the  
23 claimed "instruction to operate in accordance with a given one of the first and second zone scenes"  
24 to a Lifestyle player in "a synchronization group" to cause the Lifestyle player to operate in  
25 accordance with the "synchronization group." However, for similar reasons to those I explained  
26 in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, this theory is flawed  
27 for several reasons.

28 1404. First, this discussion of the Bose Lifestyle 50 System relies exclusively on the

1 functionality in the Bose Lifestyle 50 System for forming ad-hoc “shared source groups,” which  
2 are not the claimed “zone scenes” for all of the reasons I have previously explained in Section  
3 XV.C.1.iii. Thus, this alleged functionality cannot meet the claimed requirement of receiving a  
4 “request to invoke” a “zone scene.”

5 1405. Second, even setting aside the other fundamental differences between a “shared  
6 source group” and a “zone scene,” neither the user action of allegedly selecting a previously-  
7 created “shared source group” via the Personal Music Center nor the user action of using the  
8 “playback controls” for the selected “shared source group” amounts to a “request to invoke” the  
9 “shared source group.” This is because a “shared source group” was automatically invoked at the  
10 time of its creation and then only remained in existence for the temporary period of time during  
11 which it was in an active state, so there would have never been a period of time during which a  
12 “shared source group” was created and in existence but was in an inactive, uninvoked state such  
13 that a user was presented with an option to “request to invoke” the “shared source group.” Thus,  
14 at the time that a “shared source group” was allegedly selected via the Personal Music Center, such  
15 a “shared source group” would have already been “invoked” and thus such a selection was not a  
16 “request to invoke” the “shared source group.” Rather, the user would have been selecting an  
17 already-invoked “shared source group” for purposes of controlling that already-invoked “shared  
18 source group,” not “request[ing] to invoke” the “shared source group.” And for similar reasons,  
19 any subsequent user action in the user interface with respect to the “shared source group,” such as  
20 an interaction with the “playback controls,” also would not amount to a “request to invoke” the  
21 “shared source group.”

22 1406. Dr. Schonfeld’s position to the contrary appears to be based on an interpretation of  
23 the term “invoke” that ties the act of “invok[ing]” a “zone scene” comprising a user-customized,  
24 pre-saved group of “zone players” to the time when the group of “zone players” is actually caused  
25 to play back audio, but in my opinion, this is not how a POSITA would understand the term  
26 “invoke” in the context of the claim language and specification of the ’966 Patent. Rather, a  
27 POSITA would understand that the act of “invok[ing]” a “zone scene” comprising a user-  
28 customized, pre-saved group of “zone players” refers to the point in time when the pre-saved group



1 of “zone players” is activated for synchronous playback such that the “zone players” enter a mode  
2 in which they are controlled and used as part of the group, which is distinct from the act of initiating  
3 playback on that group of “zone players” (although in some scenarios it is possible that playback  
4 could be automatically initiated as a result of the “zone scene” being invoked). *See, e.g.*, ’407  
5 Provisional at App’x A, p. 4 (explaining that when a “Zone Scene” is invoked at a time when “no  
6 music is playing in any Zone – then the zones will simply link in a group” without playing any  
7 music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor of the ’885 and ’966 Patents testifying  
8 that a “zone scene” does not have to start actively playing audio “at that moment when the group  
9 is invoked”); D.I. 309 (the Court describing “standalone mode” as a mode in which a “zone player”  
10 “operate[s] individually” as contrasted with a mode in which the “zone player” is “being controlled  
11 as part of [a] group” and never mentioning active playback as a required aspect of “standalone  
12 mode”). And as explained previously, the “shared source groups” in the Bose Lifestyle 50 System  
13 were automatically invoked at the time of their creation and then only remained in existence for  
14 the temporary period of time during which they were in an active state, so there would have never  
15 been a period of time during which a “shared source group” was created and in existence but was  
16 in an inactive, uninvoked state such that a user was presented with an option to “request to invoke”  
17 the “shared source group” as required by Asserted Claim 1 of the ’966 Patent.

18 1407. Third, even setting aside the other fundamental differences between a “shared  
19 source group” of audio and a “zone scene,” I have not seen any evidence that the Personal Music  
20 Center and/or Multi-Room Interface of the actual Bose Lifestyle 50 System transmits any sort of  
21 information in response to a user selecting one or more rooms using the ROOM or HOUSE button  
22 of the Personal Music Center. Dr. Schonfeld’s only rebuttal is to point to the Bose link  
23 communication protocol, which is not utilized by or compatible with the actual Bose Lifestyle 50  
24 System, as explained above. *See* Schonfeld Op. Report at ¶ 955 (“Dr. Almeroth contends that  
25 ‘seen no evidence that the Personal Music Center transmits any sort of information in response to  
26 a user select ing one or more rooms using the Room or House button of the Personal Music  
27 Center.” I disagree. As shown above, the Bose link is essentially a conversation between the media  
28 center and the playback speakers such that the media center sends commands along with audio to

1 the playback speak, which then ‘responds’ with information.”). This confirms my position that  
2 there is no evidence that the Personal Music Center and/or Multi-Room Interface of the actual  
3 Bose Lifestyle 50 System transmits any sort of information in response to a user selecting one or  
4 more rooms using the ROOM or HOUSE button of the Personal Music Center. I address Dr.  
5 Schonfeld’s reliance on the Bose link communication protocol below.

6 1408. Fourth, even setting aside the other fundamental differences between a “shared  
7 source group” of audio and a “zone scene,” and assuming that the Personal Music Center does  
8 transmit an instruction in response to a user “us[ing] the playback controls, such as an instruction  
9 to play audio, I have not seen any evidence that such an instruction is transmitted from the Personal  
10 Music Center to a Lifestyle player. Instead, based on the materials I have reviewed, the Personal  
11 Music Center can only transmit information to the Multi-Room Interface of the Bose Lifestyle 50  
12 System. *See, e.g.*, BOSE\_SUB-0000001-55 at 19 (“When batteries are first installed in the music  
13 center; it sets up a radio-frequency link with the closest Multi-Room Interface. ... Hold the music  
14 center close to the Multi-Room Interface. Press and hold MUTE for about 5 seconds until you hear  
15 a beep and then release. After about 10 seconds, the music center should beep twice to confirm  
16 that the link is established.”), 45 (“To add a new music center to your system, follow the setup  
17 instructions on page 17. Be sure to install the batteries and turn it on for the first time close to the  
18 multi-room interface to allow the new music center to set up a radio frequency link with your  
19 system. If the multi-room interface is not plugged in or the music center is out of range, the display  
20 indicates NO RESPONSE.”); BOSE\_SUB-0000684-687 at 685 (describing the “Multi-room  
21 interface” as a “[s]mall, hideaway connection box transmits data to, and receives data from, the  
22 Personal music center via a radio data link.”). Thus, to the extent the Personal Music Center  
23 transmits an instruction to play audio on one or more selected rooms each having a Lifestyle player,  
24 it is my understanding that the instruction would be transmitted to the Multi-Room Interface, which  
25 would then configure itself to start to distribute audio to the one or more selected rooms via the  
26 Room A-D audio output connectors. *Id.*; *see also id.* at BOSE\_SUB-0000001-55 at 6 (“The Bose  
27 multi-room interface, with four independent audio outputs that allow you to enjoy Bose sound  
28 throughout your home.”), 12 (illustrating a Bose Lifestyle 50 System configuration with a CD

1 player and an Acoustimass module connected the multi-room interface). Further, I have seen no  
2 evidence the Multi-Room Interface can relay or transmit such an instruction to play music to  
3 Lifestyle player.

4 1409. Further yet, even if an instruction was sent from the Multi-Room Interface to a  
5 Lifestyle player (which I have seen no evidence of), such an instruction would not be received  
6 over a data network. As explained above, a POSITA would not consider the Multi-Room Interface  
7 and the Lifestyle players to be operating on a data network because the hard-wired connection  
8 therebetween is not a medium that interconnects devices, enabling them to send digital data packets  
9 to and receive digital data packets from each other.

10 1410. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
11 Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may be  
12 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
13 in the Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4  
14 / 1.10 of Asserted Claim 1 of the '966 Patent.

15 Dr. Schonfeld's alleged Bose Lifestyle 50 System

16 1411. When discussing his alleged Bose Lifestyle 50 System and claim limitation 1.9 of  
17 Asserted Claim 1 of the '885 Patent, Dr. Schonfeld cites disclosure about the Bose link  
18 communication protocol and states the following: "Bose Link is used as protocol to communicate  
19 between and amongst the various zones in order to invoke, for example, the play command that  
20 simultaneously plays audio in multiple zones. More specifically, Bose Link in conjunction with  
21 the media center operates over a network and allows for a user's pre-defined zones to also play  
22 different audio in simultaneously." *See* Schonfeld Op. Report at ¶ 956 (citing BOSE\_SUB-  
23 0000594-601 at 595-597). Although, unclear, Dr. Schonfeld appears to be suggesting that a "play  
24 command" sent using the Bose link communication protocol meets the claimed "instruction to  
25 operate in accordance with a given one of the first and second zone scenes." However, for similar  
26 reasons to those I explained in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885  
27 Patent, this theory is flawed for several reasons.

28 1412. First, in his section discussing his alleged version of the Bose Lifestyle 50 System

1 and claim limitation 1.9 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld relies on  
2 functionality related to the Bose link communication protocol. *See* Schonfeld Op. Report at ¶ 956  
3 (citing BOSE\_SUB-0000594-601 at 595-597). However, as I have already explained above in  
4 Section XV.C.1.iii, the functionality that he relies on for the Bose link communication protocol  
5 does not disclose the claimed “zone scene” functionality.

6 1413. Second, to the extent I understand what Dr. Schonfeld is saying, Dr. Schonfeld's  
7 position that a “play command” meets the claimed “instruction to operate in accordance with a  
8 given one of the first and second zone scenes” of limitation 1.9 of Asserted Claim 1 of the '885  
9 Patent appears to be based on an interpretation of the term “invoke” that ties the act of “invok[ing]”  
10 a “zone scene” comprising a user-customized, pre-saved group of “zone players” to the time when  
11 the group of “zone players” is actually caused to play back audio, but in my opinion, this is not  
12 how a POSITA would understand the term “invoke” in the context of the claim language and  
13 specification of the '966 Patent. Rather, a POSITA would understand that the act of “invok[ing]”  
14 a “zone scene” comprising a user-customized, pre-saved group of “zone players” refers to the point  
15 in time when the pre-saved group of “zone players” is activated for synchronous playback such  
16 that the “zone players” enter a mode in which they are controlled and used as part of the group,  
17 which is distinct from the act of initiating playback on that group of “zone players” (although in  
18 some scenarios it is possible that playback could be automatically initiated as a result of the “zone  
19 scene” being invoked). *See, e.g.*, '407 Provisional at App'x A, p. 4 (explaining that when a “Zone  
20 Scene” is invoked at a time when “no music is playing in any Zone – then the zones will simply  
21 link in a group” without playing any music); 6/6/2022 Lambourne Dep. Tr. at 59:5-16 (inventor  
22 of the '885 and '966 Patents testifying that a “zone scene” does not have to start actively playing  
23 audio “at that moment when the group is invoked”); D.I. 309 (the Court describing “standalone  
24 mode” as a mode in which a “zone player” “operate[s] individually” as contrasted with a mode in  
25 which the “zone player” is “being controlled as part of [a] group” and never mentioning active  
26 playback as a required aspect of “standalone mode”). And as explained previously, the “shared  
27 source groups” in the Bose Lifestyle 50 System were automatically invoked at the time of their  
28 creation and then only remained in existence for the temporary period of time during which they

1 were in an active state, so there would have never been a period of time during which a “shared  
2 source group” was created and in existence but was in an inactive, uninvoked state such that a user  
3 was presented with an option to “request to invoke” the “shared source group” as required by  
4 Asserted Claim 1 of the ’966 Patent.

5 1414. Third, contrary to Dr. Schonfeld’s assertion, I have not seen any evidence of a “play  
6 command that simultaneously plays audio in multiple zones” in the “Understanding Bose link”  
7 document cited by Dr. Schonfeld. *See* BOSE\_SUB-0000594-601. Instead, according to the  
8 “Understanding Bose link” document cited by Dr. Schonfeld, the only information transmitted  
9 from a Bose link enabled media center to a Bose link expansion product (e.g., an SA-2 or SA-3  
10 Amplifier) is “on/off, volume and source commands along with audio.” *See* BOSE\_SUB-  
11 0000594-601 at 595. In my opinion, none of this information amounts to “an instruction to operate  
12 in accordance with” a group of Lifestyle players, and Dr. Schonfeld does not assert otherwise.

13 1415. Moreover, as explained above, in a Bose link system, each SA-2 or SA-3 amplifier  
14 is a Bose link expansion product in each room needs its own dedicated Bose link expansion  
15 controller, such as the RC-18S Remote Control, RC-38S Remote Control, and Personal Music  
16 Center II, and such controllers can only be set up to control a single room at a time by setting the  
17 “room code” of the remote control to match the “room code” of the SA-2 or SA-3 Amplifier. *See*  
18 BOSE\_SUB-0000361-448 at 384-386; *see also* BOSE\_SUB-0000594-601 at 595 (“Both the  
19 expansion product and the remote must be configured to operate on the same room.”). Thus,  
20 contrary to Dr. Schonfeld’s assertion, there is no way to send a “play command that simultaneously  
21 plays audio in multiple zones” using the Bose link communication protocol.

22 1416. Further, as I explained in my ’885 Rebuttal Report, a POSITA would understand  
23 that the “instruction to operate in accordance with” the selected “zone scene” requires an  
24 instruction that causes the selected “zone scene” to become “invoked” such that the group of “zone  
25 players” becomes activated. However, any alleged “play command” would be sent after a group  
26 of Bose link expansion products was set to the same audio stream and was already activated for  
27 synchronous playback, as explained above.

28 1417. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the

Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in Dr. Schonfeld’s alleged Bose Lifestyle 50 System did not have the functional capability required by limitations 1.4 / 1.10 of Asserted Claim 1 of the ’966 Patent.<sup>64</sup>

**x. The Bose Lifestyle 50 System Did Not Meet Limitation 1.11**

1418. Limitation 1.11 of Asserted Claim 1 of the ’966 Patent requires the “computing device” to be encoded with executable “program instructions” that cause the computing device to perform the following function(s):

[1.11] based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.

1419. In my opinion, the Bose Lifestyle 50 System did not meet this requirement.

1420. As explained above, the evidence I have reviewed establishes that the Bose Lifestyle 50 System only provided users with the ability to form and use ad-hoc “shared source groups,” which are not the claimed “zone scenes” for the reasons explained above. Thus, for this reason, the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room

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<sup>64</sup> Finally, although unclear, in his section discussing the Bose Lifestyle 50 System and limitation 1.8 of Asserted Claim 1 of the ’885 Patent (which Dr. Schonfeld does not rely on for limitation 1.10 of Asserted Claim 1 of the ’966 Patent), Dr. Schonfeld appears to be suggesting that multiple Bose link enabled Lifestyle players (e.g., SA-2 or SA-3 amplifiers) in a Bose link configuration have the functional capability of limitation 1.8 because they can be “offline” after they are connected to a Bose link enabled media center and then brought “online” when a user invokes the multiple Bose link enabled Lifestyle players using a remote control. *See* Schonfeld Op. Report at ¶¶ 928-932. To the extent Dr. Schonfeld is relying on this “offline” / “online” argument in the same manner that he relied on his “powered-off” theory for Squeezebox, it fails for the same reasons as I explained above in connection with Squeezebox. Moreover, I have reviewed the materials cited by Dr. Schonfeld and I fail to see any discussion of Lifestyle layers being “offline” and then being brought “online.” As such, it is not clear what functionality of the Bose Lifestyle 50 System that Dr. Schonfeld is even referring to. Regardless, in my opinion, a POSITA would not consider a speaker that is “offline” to be “operating in a standalone mode in which the first zone player is configured to play back media individually.” Additionally, in my opinion, a POSITA would consider the user action of bringing a speaker “online” to be distinctly different from the claimed requirement of a “request to invoke” the “shared source group.”



Interface) in the Bose Lifestyle 50 System did not have any functional capability for invoking a “zone scene” – let alone the required functional capability for “based on the third request [to invoke the first zone scene], causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.”

1421. Further, in the context of the surrounding claim language, a POSITA would understand that the “computing device” is required to carry out the functionality of limitation 1.11 at a time when (i) the “first zone scene” and “second zone scene” have been created and are both in existence and (ii) the “first zone player” is “operating in a standalone mode,” which means that the “first zone scene” and the “second zone scene” both must be in an inactive state at the time that this functionality is carried out (otherwise, the “first zone player” could not be in “standalone mode”). However, in the Bose Lifestyle 50 System, it was not possible for an ad-hoc “shared source group” to exist in an inactive state in which the members of the “shared source group” could be used for individual playback while the “shared source group” remained available for selection by a user; rather, an ad-hoc “shared source group” only remained in existence for the temporary period of time during which it was activated, and once deactivated, the “shared source group” would cease to exist.

1422. Further yet, in the context of the surrounding claim language, a POSITA would understand that the “computing device” is required to carry out the functionality of limitation 1.11 at some point in time that is later than when it received the “request to create [the] first zone scene” and the “first zone scene” was created based on that “request.” Indeed, at a minimum, there must be a time gap between the time when the “computing device” received the “request to create [the] first zone scene” and the time when the “computing device” carries out the functionality of limitation 1.11 that is long enough to allow (i) the “first zone scene” to be created, (ii) the “computing device” to display “representation[s]” of the “first zone scene” as well as the “second zone scene,” and (iii) a user to view the displayed “representation[s]” of the “first zone scene” and “second zone scene” and then input the “request to invoke the first zone scene.” However, in the

1 Bose Lifestyle 50 System, the Personal Music Center (and any other alleged “computing device”  
2 that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and  
3 the Multi-Room Interface) would have only received a single request that served to both create  
4 and invoke a “shared source group,” and this single request is what would have triggered the Multi-  
5 Room Interface of the Bose Lifestyle 50 System to configure itself to distribute audio from the  
6 selected audio source to the selected Lifestyle player in the “shared source group” in order to cause  
7 those Lifestyle players to play back the same music simultaneously – the Personal Music Center  
8 (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the  
9 combination of the Personal Music Center and the Multi-Room Interface) would have never  
10 received an initial “request to create” a “shared source group” followed by some later, separate  
11 “request to invoke” the “shared source group.” This is because an ad-hoc “shared source group”  
12 was automatically invoked at the time of its creation and then only remained in existence for the  
13 temporary period of time during which it was in an active state, after which time the “shared source  
14 group” would cease to exist. Thus, in the Bose Lifestyle 50 System, there would have never been  
15 a period of time during which a “shared source group” was created and in existence but was in an  
16 inactive, uninvoked state such that a user was presented with an option to “request to invoke” the  
17 “shared source group” that would subsequently trigger the Personal Music Center (and any other  
18 alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the  
19 Personal Music Center and the Multi-Room Interface) to cause the Lifestyle players in a “shared  
20 source group” to become configured to play the same music simultaneously.

21 1423. Still further, the evidence I have reviewed establishes that a Lifestyle player did not  
22 have the capability to “transition[] from operating in [a] standalone mode to operating in  
23 accordance with” a “shared source group” such that the Lifestyle player would have been  
24 “configured to coordinate with at least [one other Lifestyle player] to output media in synchrony  
25 with output of media by at least [the one other Lifestyle player].” In fact, the evidence I have  
26 reviewed establishes a Lifestyle player did not have the capability to “coordinate” with another  
27 Lifestyle player for any purpose – let alone for purposes of outputting audio in synchrony -- nor  
28 did a Lifestyle player have the capability to change its “configur[ation]” as it related to audio

1 playback. To the contrary, the evidence I have reviewed shows that the Multi-Room Interface of  
2 the Bose Lifestyle 50 System was exclusively responsible for the “shared source group”  
3 functionality, and the Lifestyle players never changed into a different “mode” for group playback  
4 or even had any awareness of whether or not they were part of a “shared source group.” *See, e.g.*,  
5 BOSE\_SUB-0000001-55 at 6 (“The Bose Multi-Room Interface, with four independent audio  
6 outputs that allow you to enjoy Bose sound throughout your home.”), 12 (illustrating a Bose  
7 Lifestyle 50 System configuration with a CD player and an Acoustimass module connected the  
8 Multi-Room Interface), 17 (illustrating various audio sources connected to Multi-Room Interface  
9 via audio input cables), 19 (“When batteries are first installed in the music center; it sets up a radio-  
10 frequency link with the closest multi-room interface.... If the music center continuously displays  
11 “NO RESPONSE,” you need to try to establish its link with the multi-room interface again.”), 42  
12 (Figure 47 showing “AUDIO OUTPUT” jacks for each room), 44-45 (explaining how to use  
13 ROOM and HOUSE buttons of the Personal Music Center to set up an audio source for one or  
14 more rooms connected to the Multi-Room Interface), 45 (“To add a new music center to your  
15 system, follow the setup instructions on page 17. Be sure to install the batteries and turn it on for  
16 the first time close to the multi-room interface to allow the new music center to set up a radio  
17 frequency link with your system. If the multi-room interface is not plugged in or the music center  
18 is out of range, the display indicates NO RESPONSE.”).

19 1424. Despite this clear evidence establishing that the Personal Music Center (and any  
20 other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination  
21 of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did  
22 not have any “zone scenes” capability, Dr. Schonfeld nevertheless opines that claim limitation  
23 1.11 of Asserted Claim 1 of the ’966 Patent was either disclosed or rendered obvious by the Bose  
24 Lifestyle 50 System. *See* Schonfeld Op. Report at ¶ 1045. However, I find Dr. Schonfeld’s  
25 opinions regarding the Bose Lifestyle 50 System and claim limitation 1.11 of Asserted Claim 1 of  
26 the ’966 Patent to be flawed for several reasons.

27 1425. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
28 Lifestyle 50 System and claim limitation 1.11 of Asserted Claim 1 of the ’966 Patent is shown in

the screenshot below from Dr. Schonfeld's Opening Report:

(xii) *Limitation 1.11 based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.*

1045. *See supra* '885 claim 1, Limitation 1.10.

1426. As these screenshots demonstrate, Dr. Schonfeld is relying exclusively on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), claim limitation 1.11 of Asserted Claim 1 of the '966 Patent uses different claim language than the limitations of Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to claim limitation 1.11 of Asserted Claim 1 of the '966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was actually *disclosed* by the Bose Lifestyle 50 System versus whether his opinion is that claim limitation 1.11 of Asserted Claim 1 of the '966 Patent was only *rendered obvious* by the Bose Lifestyle 50 System. And along similar lines, Dr. Schonfeld never articulates what he considers to be the "third request to invoke the first zone scene" or what functionality satisfies the "causing" limitation in the Bose Lifestyle 50 System. For these reasons, I disagree that Dr. Schonfeld's barebones discussion of claim limitation 1.11 of Asserted Claim 1 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions

1 regarding claim limitation 1.11 of Asserted Claim 1 of the '966 Patent.<sup>65</sup>

2 1427. With that said, as I have discussed above in Section XV.C.1.iii as well as in my  
3 '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of  
4 the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
5 number of flaws, many of which are applicable to claim limitation 1.11 of Asserted Claim 1 of the  
6 '966 Patent as well – including that he relies on functionality that is not even part of the actual  
7 Bose Lifestyle 50 System, that he fails to identify what he is alleging to meet the various aspects  
8 of these claim limitations, and that his analysis is premised on both an incorrect interpretation of  
9 what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of  
10 the Bose Lifestyle 50 System functionality and the evidence related thereto.

11 1428. For instance, Dr. Schonfeld's opinion that the Bose Lifestyle 50 System meets  
12 limitation 1.10 of Asserted Claim 1 of the '885 Patent (upon which he relies for limitation 1.11 of  
13 Asserted Claim 1 of the '966 Patent) is based on his analysis of “previous claim elements” of  
14 Asserted Claim 1 of the '885 Patent, which, as explained above, are based on functionality that is  
15 not related to or compatible with the actual Bose Lifestyle 50 System itself. *See* Schonfeld Op.  
16 Report at ¶¶ 960-961. For these reasons alone, Dr. Schonfeld's theory is flawed and he has failed  
17 to prove that the actual Bose Lifestyle 50 System discloses the claimed “zone scene” functionality  
18 of claim limitation 1.11 of Asserted Claim 1 of the '966 Patent.

19 1429. Further, in his section discussing the Bose Lifestyle 50 System and claim limitation  
20 1.10 of Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's entire analysis is the following  
21 statement: “[a]s described in the previous claim elements, a user may select a synchronization  
22 group for playback using the Player selector box, and use the playback controls to cause Bose  
23 LifeStyle to operate as a synchronous playback group.” *See* Schonfeld Op. Report at ¶¶ 960-962.  
24 This theory is flawed for numerous reasons.

25 1430. First, Dr. Schonfeld references his analysis of “previous claim elements,” which  
26 are flawed for all of the reasons stated above.

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27 <sup>65</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 1431. Second, Dr. Schonfeld references a “Player selector box,” but I am not aware of  
2 such a feature in the Bose Lifestyle 50 System. Instead, this appears to be referencing the “Player  
3 selector box” of Squeezebox, which I addressed above in my discussion of Squeezebox.

4 1432. Third, nowhere in this “analysis” does Dr. Schonfeld mention anything about  
5 Lifestyle players being “configured to coordinate” for synchronous playback, which is a  
6 requirement of limitation 1.10 of Asserted Claim 1 of the ’885 Patent as well as limitation 1.11 of  
7 Asserted Claim 1 of the ’966 Patent.

8 1433. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
9 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
10 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
11 in the Bose Lifestyle 50 System did not have the functional capability required by limitation 1.11  
12 of Asserted Claim 1 of the ’966 Patent.

13 **xi. Asserted Claim 1 Would Not Have Been Obvious Based on The**  
14 **Bose Lifestyle 50 System in view of the Secondary References**  
15 **Identified by Dr. Schonfeld**

16 1434. In his Opening Report, Dr. Schonfeld does not offer any opinion that Asserted  
17 Claim 1 of the ’966 Patent is anticipated by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
18 Report at Section XII.C, ¶¶ 1034-1065. Instead, Dr. Schonfeld only opines that Asserted Claim 1  
19 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System. *Id.*

20 1435. In particular, Dr. Schonfeld’s section for the ’966 Patent as compared to the Bose  
21 Lifestyle 50 System is entitled “‘966 Claims Are Obvious Based On Bose Lifestyle in view of  
22 General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.”  
23 Schonfeld Op. Report at Section XII.C. Dr. Schonfeld then includes a sub-section entitled “Claim  
24 1 Is Invalid Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos  
25 Forums, Nourse, Rajapakse or Millington” where he lists out each limitation of Asserted Claim 1  
26 of the ’966 Patent, although Dr. Schonfeld does not provide any analysis of how the limitations of  
27 Asserted Claim 1 of the ’966 Patent are allegedly disclosed or rendered obvious by the Bose  
28 Lifestyle 50 System in view of General knowledge of a POSITA, the Sonos Forums, Nourse,



1 Rajapakse or Millington. *Id.* at Section X11.C.26, ¶¶ 1134-1045. Instead, Dr. Schonfeld merely  
2 refers back to the limitation-by-limitation analysis that he set forth in connection with his opinion  
3 that Asserted Claim 1 of the '885 Patent is rendered obvious based on the Bose Lifestyle 50  
4 System. *Id.*

5 1436. However the Asserted Claims of the '966 Patent are directed to a different type of  
6 device than Asserted Claim 1 of the '885 Patent (a “computing device” configured to “serv[e] as  
7 a controller” as opposed to a “zone player”), Asserted Claim 1 of the '966 Patent requires a  
8 different combination of claim limitations than Asserted Claim 1 of the '885 Patent, and Dr.  
9 Schonfeld fails to provide any further explanation as to how his prior obviousness analysis of  
10 Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. As a result,  
11 Dr. Schonfeld fails to articulate how or why even a single claim limitation of Asserted Claim 1 of  
12 the '966 Patent would be rendered obvious based on “Bose Lifestyle in view of General knowledge  
13 of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington” as he states – let alone how or  
14 why the entire combination of claim limitations of Asserted Claim 1 of the '966 Patent would be  
15 rendered obvious based on “Bose Lifestyle in view of General knowledge of a POSITA, the Sonos  
16 Forums, Nourse, Rajapakse or Millington.” For these reasons, I disagree that Dr. Schonfeld has  
17 provided a detailed and complete statement of all opinions to be expressed and the basis and  
18 reasons therefor, which I understand to be the governing standard for expert reports, and Dr.  
19 Schonfeld’s failure to do so has prejudiced my ability to fully discern, assess, and respond to his  
20 obviousness opinions regarding Asserted Claim 1 of the '966 Patent.<sup>66</sup>

21 1437. Nevertheless, in the sub-sections below, I have made my best effort to assess and  
22 respond to Dr. Schonfeld’s unsupported and conclusory opinion that Asserted Claim 1 of the '966  
23 Patent is rendered obvious based on “Bose Lifestyle in view of General knowledge of a POSITA,  
24 the Sonos Forums, Nourse, Rajapakse or Millington.”

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27 <sup>66</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

(a) The Bose Lifestyle 50 System in view of the General  
Knowledge of a POSITA

1438. At Section XII.C of his Opening Report, Dr. Schonfeld states his opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA.” Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my opinion, claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA,” and Dr. Schonfeld’s opinion to the contrary is flawed for several reasons.

1439. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for his stated opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA.” *See* Schonfeld Op. Report at ¶¶ 1034-1045. Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA,” without providing any explanation as to how that prior obviousness analysis of Asserted Claim 1 of the '885 Patent applies to Asserted Claim 1 of the '966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld’s opinion that Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA” to be deficient.

1440. Additionally, Dr. Schonfeld’s obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the '885 Patent is rendered obvious by the Bose Lifestyle 50 System in view of the “general knowledge of a POSITA” suffers from a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

1441. First, even if the Bose Lifestyle 50 System were to be modified in the various ways proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific player-side “zone scenes” functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side “zone scenes” functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze.

1442. Second, Dr. Schonfeld’s proposed modifications to the Bose Lifestyle 50 System

1 are all nothing more high-level suggestions – such as “add[ing] overlapping groups” – and Dr.  
2 Schonfeld has failed to provide any explanation as to how these proposed modifications to a the  
3 Bose Lifestyle 50 System would have actually been implemented, let alone how the proposed  
4 modifications would have achieved either the specific player-side “zone scenes” functionality  
5 required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone scenes”  
6 functionality required by Asserted Claim 1 of the ’966 Patent that Dr. Schonfeld failed to analyze.  
7 Moreover, in my opinion, implementing Dr. Schonfeld’s high-level suggestions would have  
8 required substantial, non-obvious modifications to the “shared source group” functionality of the  
9 Bose Lifestyle 50 System at the time.

10 1443. Third, I disagree that a POSITA in 2005-06 would have been motivated to modify  
11 the Bose Lifestyle 50 System in any one of the ways proposed by Dr. Schonfeld – let alone all of  
12 the different ways proposed by Dr. Schonfeld. As discussed above, the Bose Lifestyle 50 System  
13 already included ad-hoc “shared source group” functionality that allowed Lifestyle players to be  
14 grouped together on demand to play the same audio source simultaneously (albeit in a different way  
15 than the claimed “zone scenes” functionality), and I have not seen any evidence suggesting that a  
16 POSITA in 2005-06 would have recognized any particular problem with the Bose Lifestyle 50  
17 System’s ad-hoc “shared source group” functionality that would have led such a POSITA to consider  
18 a different mechanism for grouping Lifestyle players together – let alone would have led such a  
19 POSITA to implement the specific “zone scenes” functionality that is claimed in the ’885 and ’966  
20 Patents. For at least these reasons, I disagree that a POSITA in 2005-06 would have been motivated  
21 to replace the existing ad-hoc “shared source group” functionality of the Bose Lifestyle 50 System  
22 with the claimed “zone scenes” functionality, particularly in view of the time, effort, and cost that  
23 would have been required to overhaul the Bose Lifestyle 50 System’s grouping mechanism.

24 1444. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
25 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
26 modify the Bose Lifestyle 50 System in the various ways proposed by Dr. Schonfeld. However,  
27 in addition to the fact that Dr. Schonfeld failed to articulate any reasoning as to why a POSITA  
28 would have been motivated to modify the Bose Lifestyle 50 System to achieve the specific

1 controller-side “zone scenes” functionality required by Asserted Claim 1 of the ‘966 Patent, I  
2 disagree with Dr. Schonfeld’s theories for the reasons explained below.

3 1445. Starting with paragraph 908 of his Opening Report, Dr. Schonfeld states as follows  
4 with respect to his proposed modification to “add overlapping groups”:

5 A POSITA would have been motivated to add overlapping groups because Bose  
6 LifeStyle’s own marketing materials touted the flexibility of its system to allow  
users to play back media throughout their household. *Supra*.

7 Schonfeld Op. Report at ¶ 908. I disagree. Bose’s marketing materials touting the ability “the  
8 flexibility of its system to allow users to play back media throughout their household” was a  
9 description of capabilities that purportedly *already existed* in the Bose Lifestyle 50 System. This  
10 statement informing potential customers about an existing capability of the Bose Lifestyle 50  
11 System would not have motivated a POSITA in 2005-06 to modify the Bose Lifestyle 50 System  
12 in any way – let alone a motivation to modify the Bose Lifestyle 50 System in the many ways  
13 required to achieve the specific controller-side “zone scenes” functionality required by Asserted  
14 Claim 1 of the ‘966 Patent.

15 1446. Turning next to paragraph 909 of his Opening Report, Dr. Schonfeld also states as  
16 follows with respect to his proposed modification to “add overlapping groups”:

17 A person of skill in the art would have recognized that by allowing a user to create  
18 speaker groups, those groups may either (1) allow overlapping group membership  
19 or (2) not allow overlapping group membership. Given that allowing overlapping  
20 group membership may be attractive to certain users because there was a recognized  
“need for dynamic control of the audio players as a group,” it would have been  
obvious to select allowing overlapping group membership when implementing  
speaker groups. ’885 Pat at 1:30-34.

21 Schonfeld Op. Report at ¶ 909. I disagree for the same reasons discussed above with respect to  
22 Sonos’s 2005 system.

23 1447. Specifically, as an initial matter, I disagree with Dr. Schonfeld’s suggestion that  
24 this would have simply been a matter of whether or not to “allow overlapping group membership.”  
25 The evidence I have reviewed shows that the Bose Lifestyle 50 System was employing a distinctly  
26 different type of grouping technology that would not even allow for “overlapping group  
27 membership” because “shared source groups” were temporary, ad-hoc groups that were  
28

1 automatically activated at the time they were created. As such, it would not have been possible to  
2 simply modify the existing grouping technology of the Bose Lifestyle 50 System to “allow  
3 overlapping group membership” – a completely different grouping technology would have been  
4 required. And in any event, modifying the Bose Lifestyle 50 System to “add overlapping groups”  
5 would not have achieved the specific “zone scenes” functionality required by either Asserted Claim  
6 1 of the '885 Patent or Asserted Claim 1 of the '966 Patent.

7 1448. Further, the fact that the inventor of the '966 Patent recognized a “need for dynamic  
8 control of the audio players as a group” does not establish that a POSITA in 2005-06 would have  
9 recognized that same need, and Dr. Schonfeld fails to identify any other evidence to support his  
10 statement that this need would have been recognized by a POSITA in 2005-06. And regardless,  
11 even if a POSITA in 2005-06 were to have recognized this need, I fail to see how that would have  
12 motivated a POSITA in 2005-06 to modify the Bose Lifestyle 50 System’s ad-hoc “shared source  
13 group” functionality at all given that it already allowed Lifestyle players to be controlled as a group –  
14 let alone would have motivated a POSITA in 2005-06 to replace the Bose Lifestyle 50 System’s  
15 ad-hoc “shared source group” functionality with the specific “zone scenes” functionality required  
16 by either Asserted Claim 1 of the '885 Patent or Asserted Claim 1 of the '966 Patent.

17 1449. Further yet, Dr. Schonfeld fails to identify any evidence in support of his statement  
18 that “allowing overlapping group membership may be attractive to certain users,” but even if this  
19 were true, Dr. Schonfeld fails to explain how or why this would have motivated a POSITA in  
20 2005-06 to replace the Bose Lifestyle 50 System’s ad-hoc “shared source group” functionality with  
21 the specific “zone scenes” functionality required by either Asserted Claim 1 of the '885 Patent or  
22 Asserted Claim 1 of the '966 Patent.

23 1450. Turning next to paragraphs 934-936 of his Opening Report, Dr. Schonfeld again  
24 cites to the section of Mr. Lambourne’s “Zone Scenes” design specification entitled “What  
25 happens to the Music that’s already playing when a Zone Scene is Started” and repeats his same  
26 argument that “[a] person of skill in the art would have found it obvious to choose from one of  
27 these possibilities— stop music, choose music, adopt the music of the only playing speaker, and  
28 continue playing the ‘standalone’ music—when adding a speaker to a group” because “[t]hese are

1 a limited number of obvious design options.” Schonfeld Op. Report at ¶¶ 934-936. However, Dr.  
2 Schonfeld’s reliance on this section of the “Zone Scenes” design specification to support this  
3 opinion is flawed for all of the same reasons explained above, and I also disagree with Dr.  
4 Schonfeld’s suggestion that configuring a Lifestyle player to “continue playing ‘standalone’  
5 music” after being added to a “shared source group” would have been recognized as an “obvious  
6 design option[]” by a POSITA in 2005-06 – the evidence I have reviewed shows that the Bose  
7 Lifestyle 50 System was employing a distinctly different type of grouping technology that only  
8 allowed a user to create temporary, ad-hoc “shared source groups” that were automatically  
9 activated and could never exist in an inactivate state, and configuring a Lifestyle player to  
10 “continue playing ‘standalone’ music” after being added to a “shared source group” would have  
11 been directly contrary to the principle of operation of that ad-hoc “shared source group”  
12 functionality. For this reason, a POSITA in 2005-06 would not have even considered configuring  
13 a Lifestyle player to “continue playing ‘standalone’ music” after being added to a “shared source  
14 group” as a possible option, nor would a POSITA in 2005-06 have been motivated to modify the  
15 Bose Lifestyle 50 System to implement this change, as that would have required a completely  
16 different grouping technology.

17 1451. Fourth, because there is no evidence that a POSITA in 2005-06 would have been  
18 motivated to modify the Bose Lifestyle 50 System in the many ways proposed by Dr. Schonfeld,  
19 it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his conclusion  
20 that a POSITA would have found the claimed invention obvious based on the Bose Lifestyle 50  
21 System, which I understand to be improper.

22 1452. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
23 not rendered obvious by the Bose Lifestyle 50 System alone.

24 **(b) The Bose Lifestyle 50 System in view of the Sonos**  
25 **Forums**

26 1453. At Section XII.C of his Opening Report, Dr. Schonfeld states his opinion that  
27 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
28 view of the Sonos Forums. Schonfeld Op. Report at ¶¶ 1034-1045. I disagree – in my opinion,



1 Asserted Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in  
2 view of the Sonos Forums, and Dr. Schonfeld's apparent opinion to the contrary is flawed for  
3 several reasons.

4 1454. As an initial matter, to the extent that Dr. Schonfeld is offering an opinion that that  
5 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
6 view of the Sonos Forums, Dr. Schonfeld fails to set forth any bases or reasoning for such an  
7 opinion. *See* Schonfeld Op. Report at ¶¶ 1034-1045. Instead, Dr. Schonfeld relies exclusively on  
8 the obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of  
9 the '885 Patent is rendered obvious by the Bose Lifestyle 50 System, but Dr. Schonfeld also fails  
10 to provide any analysis of the Bose Lifestyle 50 System in view of the Sonos Forums in that section  
11 of his Opening Report. *Id.* For this reason alone, I find Dr. Schonfeld's opinion that Asserted  
12 Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of  
13 the Sonos Forums to be deficient.

14 1455. Moreover, to the extent that Dr. Schonfeld does intend to offer an opinion that  
15 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
16 view of the Sonos Forums, I disagree with such an opinion for at least the same reasons explained  
17 in my other sections regarding Dr. Schonfeld's obviousness opinions that are based on the Bose  
18 Lifestyle 50 System and the Sonos Forums, including that neither the Bose Lifestyle 50 System  
19 nor the Sonos Forums disclose or suggest the controller-side "zone scenes" functionality of  
20 Asserted Claim 1 of the '966 Patent. Thus, even if the Bose Lifestyle 50 System were to be  
21 modified and combined with the Sonos Forums, such a hypothetical system still would not achieve  
22 either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885  
23 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of  
24 the '966 Patent that Dr. Schonfeld failed to analyze.

25 1456. In addition to these deficiencies, Dr. Schonfeld also fails to provide any explanation  
26 as to how the Bose Lifestyle 50 System would have actually been modified to incorporate the  
27 functionality of the Sonos Forums, why a POSITA in 2005-2006 would have been motivated to  
28 modify the Bose Lifestyle 50 System to incorporate the functionality of the Sonos Forums, or how

1 such a hypothetical system would have achieved either the specific player-side “zone scenes”  
2 functionality required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone  
3 scenes” functionality required by Asserted Claim 1 of the ’966 Patent.

4 1457. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
5 not rendered obvious by the Bose Lifestyle 50 System in view of the Sonos Forums.

6 **(c) The Bose Lifestyle 50 System in view of Nourse**

7 1458. At Section VII.C of his Opening Report, Dr. Schonfeld states his opinion that  
8 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
9 view of Nourse. Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my opinion,  
10 Asserted Claim 1 of the ’966 Patent is not rendered obvious by the Bose Lifestyle 50 System in  
11 view of Nourse, and Dr. Schonfeld’s opinion to the contrary is flawed for several reasons.

12 1459. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
13 would support an opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on  
14 the Bose Lifestyle 50 System in view of Nourse. *See* Schonfeld Op. Report at Section VII.C, ¶¶  
15 1001-1012. Instead, Dr. Schonfeld only discusses Nourse in the context of certain limitations of  
16 Asserted Claim 1 of the ’885 Patent, without providing any explanation as to how that discussion  
17 applies to Asserted Claim 1 of the ’966 Patent.

18 1460. Additionally, as I previously explained in my ’885 Rebuttal Report, Dr. Schonfeld’s  
19 discussion of Nourse that he includes in his analysis of Asserted Claim 1 of the ’885 Patent as  
20 compared to the Bose Lifestyle 50 System suffers from a number of flaws, many of which are  
21 applicable to the Asserted Claims of the ’966 Patent as well.

22 1461. First, Nourse was cited on the face of the ’966 Patent, which shows that Nourse  
23 was considered by the USPTO during prosecution of the ’966 Patent and that the ’966 Patent  
24 (including Asserted Claim 1) was allowed to issue over Nourse. *See* ’966 Patent at 4. Since the  
25 USPTO already considered Nourse, I understand that Dr. Schonfeld and Google have the added  
26 burden of overcoming the deference that is due to a qualified government agency, such as the  
27 USPTO, that is presumed to have properly done its job based on its expertise in interpreting  
28 references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid

1 patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

2 1462. Second, for similar reasons to those discussed above in connection with Sonos's  
3 2005 system, Nourse fails to disclose or suggest the claimed "zone scene" functionality that was  
4 missing from a Squeezebox system. *Supra* Section XV.A.ix.c. Thus, even if a POSITA in 2005-  
5 06 were to modify and combine the Bose Lifestyle 50 System with the identified functionality of  
6 Nourse's "centralized speaker system" in the manner proposed by Dr. Schonfeld, such a  
7 hypothetical system still would not achieve either the specific player-side "zone scenes"  
8 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
9 scenes" functionality required by the Asserted Claims of the '966 Patent that Dr. Schonfeld failed  
10 to analyze.

11 1463. Third, Dr. Schonfeld has failed to provide any explanation as to how the Bose  
12 Lifestyle 50 System would have actually been modified to combine it with the identified  
13 functionality of Nourse's "centralized speaker system" – let alone how that alleged combination  
14 would have achieved the claimed invention.

15 1464. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
16 the Bose Lifestyle 50 System to incorporate the identified functionality of Nourse's "centralized  
17 speaker system." As discussed above, the Bose Lifestyle 50 System already included ad-hoc "shared  
18 source group" functionality that allowed Lifestyle players to be grouped together on demand to play  
19 the same audio source simultaneously (albeit in a different way than the claimed "zone scenes"  
20 functionality), and I have not seen any evidence suggesting that a POSITA in 2005-06 would have  
21 recognized any particular problem with the Bose Lifestyle 50 System's ad-hoc "shared source group"  
22 functionality that would have led such a POSITA to consider a different mechanism for grouping  
23 Lifestyle players – let alone would have led such a POSITA to implement the identified functionality  
24 of Nourse's "centralized speaker system." For at least these reasons, I disagree that a POSITA in  
25 2005-06 would have been motivated to replace the existing ad-hoc "shared source group" functionality  
26 of the Bose Lifestyle 50 System with the identified functionality of Nourse's "centralized speaker  
27 system," particularly in view of the time, effort, and cost that would have been required to overhaul  
28 the grouping mechanism of the Bose Lifestyle 50 System.

1 1465. Nevertheless, in his Opening Report, Dr. Schonfeld offers several unsupported,  
2 conclusory theories as to why it a POSITA in 2005-06 would have allegedly found it obvious to  
3 combine the Bose Lifestyle 50 System with the identified functionality of Nourse's "centralized  
4 speaker system" in the specific manner proposed by Dr. Schonfeld. However, in addition to the fact  
5 that Dr. Schonfeld failed to provide any analysis as to how or why the combination of the Bose  
6 Lifestyle 50 System and Nourse achieves the specific controller-side "zone scenes" functionality  
7 required by Asserted Claim 1 of the '966 Patent, I disagree with Dr. Schonfeld's theories for the  
8 reasons explained below.

9 1466. For instance, at paragraph 910 of his Opening Report, Dr. Schonfeld says that a  
10 POSITA would have been motivated to combine the Bose Lifestyle 50 System with Nourse  
11 because Nourse is "analogous to the '885 patent" and "reasonably pertinent to the problem to be  
12 solved by the '885 patent . . . ." Schonfeld Op. Report at ¶ 910. However, these generic statements  
13 fail to establish why a POSITA in 2005-06 would have been motivated to make any modification  
14 to the Bose Lifestyle 50 System at all – let alone why a POSITA in 2005-06 would have been  
15 motivated to combine the Bose Lifestyle 50 System with Nourse in the specific manner proposed  
16 by Dr. Schonfeld.

17 1467. At paragraph 910 of his Opening Report, Dr. Schonfeld also states as follows:  
18 Nourse teaches additional means for improving the user experience by allowing a  
19 user to add a playback device to multiple groups. Nourse at 3:57-4:5. It would have  
20 been desirable to allow a user to have a particular zone player join multiple groups  
21 (e.g., the kitchen and patio could be grouped for outside entertainment, and the  
22 kitchen and living room could be grouped for inside entertainment). Having a  
23 speaker join multiple groups would increase the number of customized  
24 combinations a user could configure in their home, as the Bose Lifestyle recognizes  
25 as an important feature.  
26 Schonfeld Op. Report at ¶ 910. Dr. Schonfeld fails to support this statement that "[i]t would have  
27 been desirable to allow a user to have a particular zone player join multiple groups" with any  
28 evidence, but even if a POSITA in 2005-06 were to have recognized that this functionality was  
"desirable," I fail to see any evidence that this recognition would have motivated such a POSITA  
to replace the existing ad-hoc "sync group" functionality of the Bose Lifestyle 50 System with the  
identified functionality of Nourse – particularly given that (i) the existing ad-hoc "shared source

1 group” functionality of the Bose Lifestyle 50 System already provided a mechanism for grouping  
2 Lifestyle players together and (ii) the Bose Lifestyle 50 System had a distinctly different system  
3 architecture and communication protocol than Nourse’s conventional “centralized speaker  
4 system.” Moreover, even if a POSITA in 2005-06 were to have recognized that it was “desirable”  
5 to modify the Bose Lifestyle 50 System to “allow a user to have a particular zone player join  
6 multiple groups” as Dr. Schonfeld contends, this still would not have motivated a POSITA to  
7 combine the Bose Lifestyle 50 System with the identified functionality of Nourse’s “centralized  
8 speaker system” or otherwise modify the Bose Lifestyle 50 System in the specific ways that would  
9 have been required in order to achieve either the specific player-side “zone scenes” functionality  
10 required by Asserted Claim 1 of the ’885 Patent or the specific controller-side “zone scenes”  
11 functionality required by the Asserted Claims of the ’966 Patent that Dr. Schonfeld failed to  
12 analyze.

13 1468. I have also seen evidence of affirmative reasons why a POSITA would not have  
14 been motivated to combine the Bose Lifestyle 50 System with the identified functionality of  
15 Nourse’s “centralized speaker system. For instance, as explained above, the Bose Lifestyle 50  
16 System had a distinctly different system architecture than Nourse’s conventional “centralized  
17 speaker system,” which requires, among other things, a “central station” with a “collocated”  
18 amplifier. Additionally, as explained above, Nourse’s “centralized speaker system” was primary  
19 designed to serve as a public address system, whereas the Bose Lifestyle 50 System was primary  
20 designed to serve as home audio system. Further, as explained above, the Personal Music Center  
21 and Multi-Room Interface of the Bose Lifestyle 50 System, which are used to set up a “shared  
22 source group” of Lifestyle players, communicate using a proprietary radio frequency  
23 communication protocol that was specifically developed for the Bose Lifestyle 50 System and that  
24 is “not compatible” with protocols used in other Bose systems, much less any third-party system  
25 like the one in Nourse. *See* BOSE\_SUB-0000663-683 at 666. Given these differences, it is my  
26 opinion that a POSITA would have been dissuaded from modifying the Bose Lifestyle 50 System  
27 to combine it with the identified functionality of Nourse’s “centralized speaker system.”

28 1469. Finally, because there is no evidence that a POSITA in 2005-06 would have been

1 motivated to modify the Bose Lifestyle 50 System to combine it with the identified functionality  
2 of Nourse, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
3 conclusion that a POSITA would have found the claimed invention obvious based on the Bose  
4 Lifestyle 50 System in combination with Nourse, which I understand to be improper. *Compare*  
5 Schonfeld Op. Report, ¶ 910 (“It would have been desirable to allow a user to have a particular  
6 zone player join multiple groups (e.g., the kitchen and patio could be grouped for outside  
7 entertainment, and the kitchen and living room could be grouped for inside entertainment). Having  
8 a speaker join multiple groups would increase the number of customized combinations a user could  
9 configure in their home, as the Bose Lifestyle recognizes as an important feature.”) *with* ’966  
10 Patent, 8:62-67 (“Expanding this idea further, a Zone Scene can be set to create multiple sets of  
11 linked zones. For example, a scene creates 3 separate groups of zones, the downstairs zones would  
12 be linked together, the upstairs zones would be linked together in their own group, and the outside  
13 zones (in this case the patio) would move into a group of its own.”), 2:18-24 (“There is a need for  
14 dynamic control of the audio players as a group. With a minimum manipulation, the audio players  
15 may be readily grouped. In a traditional multi-zone audio system, the audio players have to be  
16 adjusted one at a time, resulting in an inconvenient and non-homogenous audio environment.”).

17 1470. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent is  
18 not rendered obvious by the Bose Lifestyle 50 System in combination with Nourse.

19 **(d) The Bose Lifestyle 50 System in view of Rajapakse**

20 1471. At Section VII.C of his Opening Report, Dr. Schonfeld states his opinion that  
21 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
22 view of Rajapakse. Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my  
23 opinion, Asserted Claim 1 of the ’966 Patent is not rendered obvious by the Bose Lifestyle 50  
24 System in view of Rajapakse, and Dr. Schonfeld’s opinion to the contrary is flawed for several  
25 reasons.

26 1472. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning that  
27 would support an opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on  
28 the Bose Lifestyle 50 System in view of Rajapakse. *See* Schonfeld Op. Report at Section VII.C,



¶¶ 1001-1012. Instead, Dr. Schonfeld only discusses Rajapakse in the context of certain limitations of Asserted Claim 1 of the '885 Patent, without providing any explanation as to how that discussion applies to Asserted Claim 1 of the '966 Patent.

1473. Additionally, as I previously explained in my '885 Rebuttal Report, Dr. Schonfeld's discussion of Rajapakse that he includes in his analysis of Asserted Claim 1 of the '885 Patent as compared to the Bose Lifestyle 50 System suffers from a number of flaws, many of which are applicable to the Asserted Claims of the '966 Patent as well.

1474. First, as explained above, Dr. Schonfeld has failed to establish that Rajapakse qualifies as prior art to claim 1 of the '885 Patent. *Supra* Section XIII.I.

1475. Second, not only was Rajapakse cited on the face of several other Sonos patents as acknowledged by Dr. Schonfeld (Schonfeld Op. Report at ¶ 911), Rajapakse was also cited on the face of the '966 Patent. '966 Patent at 5. This shows that Rajapakse was considered by the USPTO during prosecution of the '966 Patent and that the '966 Patent (including Asserted Claim 1) was allowed to issue over Rajapakse. Since the USPTO already considered Rajapakse, I understand that Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a qualified government agency, such as the USPTO, that is presumed to have properly done its job based on its expertise in interpreting references, its understanding of the level of ordinary skill in the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld failed to satisfy this added burden.

1476. Third, for similar reasons to those discussed above in connection with Sonos's 2005 system, Rajapakse fails to disclose or suggest the claimed "zone scene" functionality that was missing from the Bose Lifestyle 50 System. *Supra* Section XV.A.ix.h. Thus, even if a POSITA in 2005-06 were to modify and combine the Bose Lifestyle 50 System with the identified functionality of Rajapakse's system in the manner proposed by Dr. Schonfeld, such a hypothetical system still would not achieve either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to analyze.

1477. Fourth, Dr. Schonfeld has failed to provide any explanation as to how the Bose

1 Lifestyle 50 System would have actually been modified to incorporate the identified functionality  
2 of Rajapakse's system – let alone how that alleged combination would have achieved the claimed  
3 invention.

4 1478. Fifth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
5 the Bose Lifestyle 50 System to incorporate the identified functionality of Rajapakse's system. As  
6 discussed above, the Bose Lifestyle 50 System already included ad-hoc "shared source group"  
7 functionality that allowed Lifestyle players to be grouped together on demand to play the same audio  
8 source simultaneously (albeit in a different way than the claimed "zone scenes" functionality), and I  
9 have not seen any evidence suggesting that a POSITA in 2005-06 would have recognized any  
10 particular problem with the Bose Lifestyle 50 System's ad-hoc "shared source group" functionality  
11 that would have led such a POSITA to consider a different mechanism for grouping Lifestyle players  
12 together – let alone would have led such a POSITA to implement the identified functionality of  
13 Rajapakse's system. For at least these reasons, I disagree that a POSITA in 2005-06 would have been  
14 motivated to replace the existing ad-hoc "sync group" functionality of the Bose Lifestyle 50 System  
15 with the identified functionality of Rajapakse's system, particularly in view of the time, effort, and  
16 cost that would have been required to overhaul the grouping mechanism of the Bose Lifestyle 50  
17 System.

18 1479. In his Opening Report, Dr. Schonfeld says that a POSITA would have found it  
19 obvious to combine the Bose Lifestyle 50 System with Rajapakse for the sole reason that  
20 "Rajapakse was cited by many Sonos patents regarding speaker grouping, including patents from  
21 the same family as the '885 patent" as well as third-party patents, including Google's own patents,  
22 that are "closely related to the '885 patent." Schonfeld Op. Report at ¶ 911. However, these  
23 generic statements fail to establish why a POSITA in 2005-06 would have been motivated to make  
24 any modification to the Bose Lifestyle 50 System at all – let alone why a POSITA in 2005-06  
25 would have been motivated to combine the Bose Lifestyle 50 System with Rajapakse in the  
26 specific manner proposed by Dr. Schonfeld.

27 1480. I have also seen evidence of affirmative reasons why a POSITA would not have  
28 been motivated to combine the Bose Lifestyle 50 System with the identified functionality of

1 Rajapakse's system.

2 1481. For example, because the Bose Lifestyle 50 System had a different system  
3 architecture than Rajapakse's system, which requires a number of different components to  
4 facilitate its "zone" functionality, including a "bridge renderer 205," a "distribution server 204,"  
5 and a "zone manager 210," among others (*see* Rajapakse at FIGs. 2-5; *see also id.* at 11:7-18), it  
6 is my opinion that a POSITA would have been dissuaded from modifying the Bose Lifestyle 50  
7 System to combine it with the identified functionality of Rajapakse's system because, for example,  
8 adding Rajapakse's "zone" functionality would have required adding additional components to the  
9 Bose Lifestyle 50 System and thereby altered the operation of the Bose Lifestyle 50 System.

10 1482. As another example, the Personal Music Center and Multi-Room Interface of the  
11 Bose Lifestyle 50 System, which are used to set up a "shared source" of audio for multiple Lifestyle  
12 players, communicate using a proprietary radio frequency communication protocol that was  
13 specifically developed for the Bose Lifestyle 50 System and that is "not compatible" with protocols  
14 used in other Bose systems, much less any third-party system like the one in Rajapakse. *See*  
15 BOSE\_SUB-0000663-683 at 666. As such, a POSITA would have been dissuaded from  
16 modifying the Bose Lifestyle 50 System to combine it with the identified functionality of  
17 Rajapakse.

18 1483. These examples show that a POSITA would have been dissuaded from modifying  
19 the Bose Lifestyle 50 System because, to the extent it was even possible, it would have required  
20 wholesale changes to the system architecture and communication protocol of the Bose Lifestyle  
21 50 System in order to, for example, enable the Personal Music Center and/or Multi-Room Interface  
22 of the Bose Lifestyle 50 System to communicate with the additional components from Rajapakse  
23 that are required to facilitate Rajapakse's "zone" functionality.

24 1484. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
25 motivated to modify the Bose Lifestyle 50 System to combine it with the identified functionality  
26 of Rajapakse, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
27 conclusion that a POSITA would have found the claimed invention obvious based on the Bose  
28 Lifestyle 50 System in combination with Rajapakse, which I understand to be improper. *See*

1 Schonfeld Op. Report, ¶ 911 (“Rajapakse was cited by many Sonos patents regarding speaker  
2 grouping, including patents from the same family as the ’885 patent, indicating that persons of  
3 skill in the art recognized that Rajapakse was highly relevant to the claimed features.”).

4 1485. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the ’966 Patent  
5 is not rendered obvious by the Bose Lifestyle 50 System in combination with Rajapakse.

6 **(e) The Bose Lifestyle 50 System in view of Millington**

7 1486. At Section VII.C of his Opening Report, Dr. Schonfeld states his opinion that  
8 Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
9 view of Millington. Schonfeld Op. Report at Section XII.C, ¶¶ 1034-1045. I disagree – in my  
10 opinion, Asserted Claim 1 of the ’966 Patent is not rendered obvious by the Bose Lifestyle 50  
11 System in view of Millington, and Dr. Schonfeld’s opinion to the contrary is flawed for several  
12 reasons.

13 1487. As an initial matter, Dr. Schonfeld fails to set forth any bases or reasoning for this  
14 opinion that Asserted Claim 1 of the ’966 Patent is rendered obvious based on the Bose Lifestyle  
15 50 System in view of Millington. *See* Schonfeld Op. Report at Section VII.B, ¶¶ 1034-1045.  
16 Instead, Dr. Schonfeld relies exclusively on the obviousness analysis that he set forth in connection  
17 with his opinion that Asserted Claim 1 of the ’885 Patent is rendered obvious by the Bose Lifestyle  
18 50 System in view of Millington, without providing any explanation as to how that prior  
19 obviousness analysis of Asserted Claim 1 of the ’885 Patent applies to Asserted Claim 1 of the  
20 ’966 Patent. *Id.* For this reason alone, I find Dr. Schonfeld’s opinion that Asserted Claim 1 of the  
21 ’966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of Millington to  
22 be deficient.

23 1488. Additionally, as I previously explained in my ’885 Rebuttal Report, Dr. Schonfeld’s  
24 obviousness analysis that he provides in connection with his opinion that Asserted Claim 1 of the  
25 ’885 Patent is rendered obvious by the Bose Lifestyle 50 System in view of Millington suffers  
26 from a number of flaws, many of which are applicable to the Asserted Claims of the ’966 Patent  
27 as well.

28 1489. First, Millington was cited on the face of the ’966 Patent, which shows that

1 Millington was considered by the USPTO during prosecution of the '966 Patent and that the '966  
2 Patent (including Asserted Claim 1) was allowed to issue over Millington. *See* '966 Patent at 5  
3 (citing to U.S. Pat. No. 8,234,395, which is a U.S. counterpart to the Millington Canadian patent  
4 relied upon by Dr. Schonfeld). Since the USPTO already considered Millington, I understand that  
5 Dr. Schonfeld and Google have the added burden of overcoming the deference that is due to a  
6 qualified government agency, such as the USPTO, that is presumed to have properly done its job  
7 based on its expertise in interpreting references, its understanding of the level of ordinary skill in  
8 the art, and its duty to issue only valid patents. However, it is my opinion that Dr. Schonfeld  
9 failed to satisfy this added burden.

10 1490. Second, for similar reasons to those discussed above in connection with Sonos's  
11 2005 system, Millington fails to disclose or suggest the claimed "zone scene" functionality that  
12 was missing from the Bose Lifestyle 50 System. *Supra* Section XV.A.ix.d. Thus, even if a  
13 POSITA in 2005-06 were to modify and combine the Bose Lifestyle 50 System with the identified  
14 functionality of Millington's "network audio system" in the manner proposed by Dr. Schonfeld,  
15 such a hypothetical system still would not achieve either the specific player-side "zone scenes"  
16 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
17 scenes" functionality required by Asserted Claim 1 of the '966 Patent that Dr. Schonfeld failed to  
18 analyze.

19 1491. Third, Dr. Schonfeld has failed to provide any explanation as to how the Bose  
20 Lifestyle 50 System would have actually been modified to incorporate the identified functionality  
21 of Millington's "network audio system" – let alone how that alleged combination would have  
22 achieved the claimed invention.

23 1492. Fourth, I disagree that a POSITA in 2005-06 would have been motivated to modify  
24 the Bose Lifestyle 50 System to incorporate the identified grouping functionality of Millington's  
25 "network audio system." As discussed above, the Bose Lifestyle 50 System already included ad-  
26 hoc "shared source group" functionality that allowed Lifestyle players to be grouped together on  
27 demand to play the same audio source simultaneously (albeit in a different way than the claimed "zone  
28 scenes" functionality), and I have not seen any evidence suggesting that a POSITA in 2005-06 would

1 have recognized any particular problem with the Bose Lifestyle 50 System's ad-hoc "shared source  
2 group" functionality that would have led such a POSITA to consider a different mechanism for  
3 grouping Lifestyle players – let alone would have led such a POSITA to implement the identified  
4 functionality of Millington's "network audio system." For at least these reasons, I disagree that a  
5 POSITA in 2005-06 would have been motivated to replace the existing ad-hoc "shared source group"  
6 functionality of the Bose Lifestyle 50 System with the identified functionality of Millington's  
7 "network audio system," particularly in view of the time, effort, and cost that would have been  
8 required to overhaul the grouping mechanism of the Bose Lifestyle 50 System.

9 1493. In his Opening Report, Dr. Schonfeld says that a POSITA would have been  
10 motivated to combine the Bose Lifestyle 50 System with Millington because "Mr. Millington  
11 worked on Sonos products that are in the same field of endeavor as the Bose Lifestyle, and  
12 therefore it would have been an obvious choice to look to for guidance about potential  
13 modifications to that system," and that "a POSITA would have looked to Millington to understand  
14 the Sonos System or its competitors, like Bose LifeStyle." Schonfeld Op. Report at ¶ 922.  
15 However, these generic statements fail to establish why a POSITA in 2005-06 would have been  
16 motivated to make any modification to the Bose Lifestyle 50 System at all – let alone why a  
17 POSITA in 2005-06 would have been motivated to replace the Bose Lifestyle 50 System's ad-hoc  
18 "shared source group" functionality with the grouping functionality of Millington's "networked  
19 audio system." Moreover, it is unclear why Dr. Schonfeld states that a POSITA "would have looked  
20 to Millington to understand the ... Bose LifeStyle" because Millington does not describe the Bose  
21 LifeStyle system. *Id.* Further, Dr. Schonfeld's statement that "Millington was also assigned to  
22 Sonos and was filed in the same timeframe as the Sonos System was released" has no bearing on  
23 whether a POSITA would have been motivated to combine the Bose Lifestyle 50 System with  
24 Millington. *Id.*

25 1494. In his Opening Report, Dr. Schonfeld also states as follows:

26 [A] person of skill in the art would have been motivated to combine Bose LifeStyle  
27 with Millington. They are both in the same field of endeavor—control of speaker  
28 systems, speaker groups, synchronous playback of speakers, and home audio  
systems—and they both describe the same features and devices (e.g., "zone



1 players”) in the same language.

2 Schonfeld Op. Report at ¶ 939.

3 1495. However, this statement appears to be carried over from the Sonos prior art section  
4 of Dr. Schonfeld’s Opening Report and does not apply to the alleged combination of the Bose  
5 Lifestyle 50 System with Millington. The Bose Lifestyle 50 System and Millington do not “describe  
6 the same features and devices (e.g., “zone players”) in the same language.” *Id.*

7 1496. I have also seen evidence of affirmative reasons why a POSITA would not have  
8 been motivated to replace the Bose Lifestyle 50 System’s ad-hoc “shared source group”  
9 functionality with the grouping functionality of Millington’s “networked audio system.”

10 1497. For example, the Bose Lifestyle 50 System had a different distinctly system  
11 architecture than Millington’s “networked audio system” because it relied on a centralized device  
12 called a Multi-Room Interface that was exclusively responsible for the “shared source group”  
13 functionality of the Bose Lifestyle 50 System. Given this difference in the system architectures, a  
14 POSITA would have been dissuaded from modifying the Bose Lifestyle 50 System to replace its  
15 ad-hoc “shared source group” functionality with the grouping functionality of Millington’s  
16 “networked audio system.”

17 1498. Along similar lines, as explained above, Millington discloses a “network audio  
18 system” that includes “zone players” that are capable of being added to a “synchrony group”  
19 comprising a set of “zone players” that are configured to “play the same audio program  
20 synchronously” by coordinating with one another over a data network. *Supra* Section XIII.E. In  
21 contrast, the Bose Lifestyle 50 System was a conventional centralized audio system with Lifestyle  
22 players that were hardwired via audio cable to a centralized Multi-Room Interface and did not have  
23 the capability to coordinate with one another over a data network for synchronous audio playback.  
24 *See* BOSE\_SUB-0000001-55 at 11-12. Given these fundamental differences between the  
25 centralized Bose Lifestyle 50 System and Millington’s “network audio system” it is my opinion  
26 that a POSITA would have been dissuaded from modifying Sonos’s 2005 system to combine it  
27 with the identified functionality of Millington’s network audio system.

28 1499. As another example, the Personal Music Center and Multi-Room Interface of the

1 Bose Lifestyle 50 System, which are used to set up a “shared source” of audio for multiple Lifestyle  
2 players, communicate using a proprietary radio frequency communication protocol that was  
3 specifically developed for the Bose Lifestyle 50 System and that is “not compatible” with protocols  
4 used in other Bose systems, much less any third-party system like the one in Millington. *See*  
5 BOSE\_SUB-0000663-683 at 666. As such, a POSITA would have been dissuaded from  
6 modifying the Bose Lifestyle 50 System to combine it with the identified functionality of  
7 Millington.

8 1500. These examples show that a POSITA would have been dissuaded from modifying  
9 the Bose Lifestyle 50 System because, to the extent it was even possible, it would have required  
10 wholesale changes to the system architecture and communication protocol of the Bose Lifestyle  
11 50 System.

12 1501. Finally, because there is no evidence that a POSITA in 2005-06 would have been  
13 motivated to modify the Bose Lifestyle 50 System to combine it with the identified functionality  
14 of Millington, it appears that Dr. Schonfeld has used the asserted claims as a roadmap to reach his  
15 conclusion that a POSITA would have found the claimed invention obvious based on the Bose  
16 Lifestyle 50 System in combination with Millington, which I understand to be improper.

17 1502. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
18 not rendered obvious by the Bose Lifestyle 50 System in combination with Millington.

19 **(f) The Bose Lifestyle 50 System in view of Squeezebox**

20 1503. At Section XII.C of his Opening Report, entitled “‘966 Claims Are Obvious Based  
21 On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse,  
22 Rajapakse or Millington,” Dr. Schonfeld does not identify the Bose Lifestyle 50 System in view  
23 of Squeezebox as an obviousness combination for Asserted Claim 1 of the '966 Patent. Schonfeld  
24 Op. Report at ¶¶1034-1045. However, in his earlier “Summary of Opinions” section, Dr.  
25 Schonfeld includes a bullet stating that “Bose in combination with Sonos Forums, *Squeezebox*,  
26 Millington, and/or Nourse renders the asserted claims obvious.” *Id.* at ¶ 6. In view of this  
27 inconsistency, it is not clear whether Dr. Schonfeld is offering an opinion that Asserted Claim 1  
28 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of

1 Squeezebox, but to the extent he is offering such an opinion, I disagree – in my opinion, Asserted  
2 Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of  
3 Squeezebox, and Dr. Schonfeld's apparent opinion to the contrary is flawed for several reasons.

4 1504. As an initial matter, to the extent that Dr. Schonfeld is offering an opinion that that  
5 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
6 view of Squeezebox, Dr. Schonfeld fails to set forth any bases or reasoning for such an opinion.  
7 *See* Schonfeld Op. Report at ¶¶ 1034-1045. Instead, Dr. Schonfeld relies exclusively on the  
8 obviousness analysis that he set forth in connection with his opinion that Asserted Claim 1 of the  
9 '885 Patent is rendered obvious by the Bose Lifestyle 50 System, but Dr. Schonfeld also fails to  
10 provide any analysis of the Bose Lifestyle 50 System in view of Squeezebox in that section of his  
11 Opening Report. *Id.* For this reason alone, I find Dr. Schonfeld's opinion that Asserted Claim 1  
12 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in view of  
13 Squeezebox to be deficient.

14 1505. Moreover, to the extent that Dr. Schonfeld does intend to offer an opinion that  
15 Asserted Claim 1 of the '966 Patent is rendered obvious based on the Bose Lifestyle 50 System in  
16 view of Squeezebox, I disagree with such an opinion for at least the same reasons explained in my  
17 other sections regarding Dr. Schonfeld's obviousness opinions that are based on the Bose Lifestyle  
18 50 System and Squeezebox, including that neither the Bose Lifestyle 50 System nor Squeezebox  
19 included any "zone scenes" functionality at all. Thus, even if the Bose Lifestyle 50 System were  
20 to be modified and combined with Squeezebox, such a hypothetical system still would not achieve  
21 either the specific player-side "zone scenes" functionality required by Asserted Claim 1 of the '885  
22 Patent or the specific controller-side "zone scenes" functionality required by Asserted Claim 1 of  
23 the '966 Patent that Dr. Schonfeld failed to analyze.

24 1506. In addition to these deficiencies, Dr. Schonfeld also fails to provide any explanation  
25 as to how the Bose Lifestyle 50 System would have actually been modified to incorporate the  
26 functionality of Squeezebox, why a POSITA in 2005-2006 would have been motivated to modify  
27 the Bose Lifestyle 50 System to incorporate the functionality of Squeezebox, or how such a  
28 hypothetical system would have achieved either the specific player-side "zone scenes"

1 functionality required by Asserted Claim 1 of the '885 Patent or the specific controller-side "zone  
2 scenes" functionality required by Asserted Claim 1 of the '966 Patent.

3 1507. Thus, for these reasons, it is my opinion that Asserted Claim 1 of the '966 Patent is  
4 not rendered obvious by the Bose Lifestyle 50 System in view of Squeezebox.

5 **xii. Summary**

6 1508. As discussed above, there are a number of different limitations of Asserted Claim  
7 1 of the '966 Patent that are neither disclosed by the Bose Lifestyle 50 System nor rendered  
8 obvious by the Bose Lifestyle 50 System either in view of the general knowledge of a POSITA,  
9 the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references  
10 identified by Dr. Schonfeld. Any one of these claim limitations serves as a separate basis for my  
11 opinion that Asserted Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50  
12 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or  
13 Millington, or any of the other secondary references identified by Dr. Schonfeld, and when taken  
14 collectively, these claim limitations provide even further support for my opinion that Asserted  
15 Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the  
16 general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of  
17 the other secondary references identified by Dr. Schonfeld.

18 1509. Further, I note that Dr. Schonfeld appears to have only performed his obviousness  
19 analysis for Asserted Claim 1 of the '885 Patent on a limitation-by-limitation basis, and has not  
20 performed any analysis or offered any opinions as to whether Asserted Claim 1 of the '885 Patent  
21 as a whole would have been obviousness, which I understand to be improper.

22 1510. Further yet, I note that Dr. Schonfeld has only offered obviousness opinions with  
23 respect to the Bose Lifestyle 50 System as combined with one other reference, and has not  
24 performed any analysis or offered any opinions as to whether a POSITA in 2005-06 would have  
25 been motivated to modify and combine the Bose Lifestyle 50 System with multiple different  
26 references.

27 1511. Accordingly, for all of the reasons explained above, it is my opinion that Asserted  
28 Claim 1 of the '966 Patent is not rendered obvious by the Bose Lifestyle 50 System in view of the

1 general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of  
2 the other secondary references identified by Dr. Schonfeld.

3 **2. Asserted Claim 2 is Not Rendered Obvious Based on the Bose Lifestyle**

4 **50 System**

5 1512. Asserted Claim 2 of the '966 Patent depends from Asserted Claim 1 of the '966  
6 Patent and requires the following:

7 [2.0] The computing device of claim 1, further comprising program instructions stored  
8 on the non-transitory computer-readable medium that, when executed by the one or more  
9 processors, cause the computing device to perform functions comprising:

10 [2.1] while the first zone player is configured to coordinate with at least the  
11 second zone player to play back media in synchrony with at least the second zone  
12 player, receiving a fourth request to invoke the second zone scene; and

13 [2.2] based on the fourth request, causing the first zone player to (a) cease to  
14 operate in accordance with the first predefined grouping of zone players such that  
15 the first zone player is no longer configured to coordinate with at least the second  
16 zone player to output media in synchrony with output of media by at least the second  
17 zone player and (b) begin to operate in accordance with the second  
18 predefined grouping of zone players such that the first zone player is configured to  
19 coordinate with at least the third zone player to output media in synchrony with  
20 output of media by at least the third zone player.

21 1513. Thus, Asserted Claim 2 of the '966 Patent requires the claimed "computing device"  
22 to be programmed with functionality for invoking the claimed "second zone scene" at a time when  
23 the "first zone scene" is currently invoked and the first and second "zone players" are "configured  
24 to coordinate" with one another for synchronous playback in accordance with the "first zone  
25 scene."

26 1514. In my opinion, Asserted Claim 2 of the '966 Patent is not rendered obvious based  
27 the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
28 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
Schonfeld.

1515. Indeed, because Asserted Claim 2 of the '966 Patent depends from Asserted Claim  
1 of the '966 Patent, it is my opinion that Asserted Claim 2 of the '966 Patent is not rendered  
obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the  
Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references

1 identified by Dr. Schonfeld for at least the same reasons discussed above in connection with  
2 Asserted Claim 1 of the '966 Patent.

3 1516. Moreover, it is my opinion that the additional limitations of Asserted Claim 2 of  
4 the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
5 Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
6 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
7 Schonfeld for similar reasons to those discussed above in connection with limitations 1.10-1.11,  
8 which are directed to functionality for invoking the claimed "first zone scene." For example, as  
9 discussed above, a "shared source group" in the Bose Lifestyle 50 System is not a "zone scene,"  
10 and the Personal Music Center (and any other alleged "computing device" that Dr. Schonfeld may  
11 be relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
12 in the Bose Lifestyle 50 System did not have any functionality capability for receiving a "request  
13 to invoke" a "zone scene" or causing Lifestyle players to operate in accordance with a "zone scene"  
14 – let alone the functional capability for performing these operations with respect to two different,  
15 overlapping "zone scenes" – nor would it have been obvious to add this functionality to the Bose  
16 Lifestyle 50 System. And for similar reasons, the Personal Music Center (and any other alleged  
17 "computing device" that Dr. Schonfeld may be relying on such as the combination of the Personal  
18 Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any  
19 functionality capability for receiving a "request to invoke" a "second zone scene" or causing  
20 Lifestyle players to operate in accordance with a "second zone scene" at a time when a "first zone  
21 scene" having a common member is currently invoked, nor would it have been obvious to add this  
22 functionality to the Bose Lifestyle 50 System.

23 1517. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
24 Claim 2 of the '966 Patent rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
25 Report at ¶ 1046. However, I find Dr. Schonfeld's opinion regarding the Bose Lifestyle 50 System  
26 and Asserted Claim 2 of the '966 Patent to be flawed for several reasons.

27 1518. As an initial matter, the entirety of Dr. Schonfeld's discussion regarding the Bose  
28 Lifestyle 50 System and Asserted Claim 2 of the '966 Patent is shown in the screenshot below



from Dr. Schonfeld's Opening Report:

**27. Claim 2 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *Limitation 2.1 The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:*
- (ii) *Limitation 2.2 while the first zone player is configured to coordinate with at least the second zone player to playback media in synchrony with at least the second zone player, receiving a fourth request to invoke the second zone scene; and*
- (iii) *Limitation 2.3 based on the fourth request, causing the first zone player to (a) cease to operate in accordance with the first predefined grouping of zone players such that the first zone player is no longer configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player and (b) begin to operate in accordance with the second predefined grouping of zone players such that the first zone player is configured to coordinate with at least the third zone player to output media in synchrony with output of media by at least the third zone player.*

1046. *See* '966 claim 1 *supra*. As discussed above, Bose Lifestyle and the identified obviousness combinations disclosed the system in claim 1. Those disclosures included the ability to receive a third request to "invoke" the first zone scene.

1519. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed

1 to a “zone player”), the Asserted Claims of the ‘966 Patent use different claim language than  
2 Asserted Claim 1 of the ‘885 Patent, and Dr. Schonfeld fails to provide any further explanation as  
3 to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations  
4 of Asserted Claim 1 of the ‘885 Patent applies to the Asserted Claims of the ‘966 Patent. For these  
5 reasons, I disagree that the Dr. Schonfeld’s discussion of Asserted Claim 2 of the ‘966 Patent  
6 amounts to a detailed and complete statement of all opinions to be expressed and the basis and  
7 reasons therefor, which I understand to be the governing standard for expert reports, and that  
8 barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions  
9 regarding Asserted Claim 2 of the ‘966 Patent.<sup>67</sup>

10 1520. With that said, as I have discussed above in Section XV.C.1 as well as in my ‘885  
11 Rebuttal Report regarding Asserted Claim 1 of the ‘885 Patent, Dr. Schonfeld’s analysis of the  
12 Bose Lifestyle 50 System in the context of Asserted Claim 1 of the ‘885 Patent suffers from a  
13 number of flaws, many of which are applicable to Asserted Claim 2 of the ‘966 Patent as well –  
14 including that his analysis is premised on both an incorrect interpretation of what is required to  
15 qualify as a “zone scene,” an incorrect interpretation of what it means to “invoke” a “zone scene,”  
16 and an inaccurate and misleading characterization of the Bose Lifestyle 50 System functionality  
17 and the evidence related thereto.

18 1521. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
19 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
20 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
21 in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim  
22 2 of the ‘966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle  
23 50 System.

24 **3. Asserted Claim 4 is Not Rendered Obvious Based on the Bose Lifestyle**  
25 **50 System**

26 1522. Asserted Claim 4 of the ‘966 Patent depends from claim 3 of the ‘966 Patent, which

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27 <sup>67</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 in turn depends from Asserted Claim 1 of the '966 Patent. Claims 3 and 4 of the '966 Patent  
2 require as follows:

3 [3.0] The computing device of claim 1, [3.1] wherein causing storage of the first  
4 zone scene comprises causing storage of the first zone scene at a location other than  
5 the computing device, and [3.2] wherein causing storage of the second zone scene  
6 comprises causing storage of the second zone scene at the location other than the  
7 computing device.

8 [4.0] The computing device of claim 3, [4.1] wherein the location other than the  
9 computing device comprises a zone player of the first predefined grouping of zone  
10 players.

11 1523. Thus, Asserted Claim 4 of the '966 Patent requires the claimed "computing device"  
12 to cause the claimed "zone scenes" to be stored at a "zone player" within the "predefined grouping"  
13 of the "first zone scene," such as the "first zone player" that is included in both the first and second  
14 "zone scenes."

15 1524. In my opinion, Asserted Claim 4 of the '966 Patent is not rendered obvious based  
16 on the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
17 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
18 Dr. Schonfeld.

19 1525. Indeed, because Asserted Claim 4 of the '966 Patent depends from Asserted Claim  
20 1 of the '966 Patent (through claim 3), it is my opinion that Asserted Claim 4 of the '966 Patent is  
21 not rendered obvious by the Bose Lifestyle 50 System in view of the general knowledge of a  
22 POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary  
23 references identified by Dr. Schonfeld identified by Dr. Schonfeld for at least the same reasons  
24 discussed above in connection with Asserted Claim 1 of the '966 Patent.

25 1526. Moreover, it is my opinion that the additional limitations of Asserted Claim 4 of  
26 the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
27 Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
28 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
Schonfeld for similar reasons to those discussed above in connection with limitations 1.6 and 1.8,  
which require the claimed "computing device" to have the functional capability to cause storage

1 of the “first zone scene” and the “second zone scene.” For example, as discussed above, a “shared  
2 source group” in the Bose Lifestyle 50 System is not a “zone scene,” and the Personal Music  
3 Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as  
4 the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle  
5 50 System did not have any functionality capability for causing storage of a “zone scene” – let  
6 alone the functional capability for causing storage of two different, overlapping “zone scenes” –  
7 nor would it have been obvious to add this functionality to the Bose Lifestyle 50 System. And for  
8 similar reasons, the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle  
9 50 System did not have any functionality capability for causing a “zone scene” to be stored at a  
10 Lifestyle player, nor would it have been obvious to add this functionality to the Bose Lifestyle 50  
11 System.

12 1527. Further even setting aside the fundamental differences between a “shared source  
13 group” of Lifestyle players and a “zone scene,” I have not seen any evidence that the Personal  
14 Music Center or any other device in the Bose Lifestyle 50 System “caus[ed] storage” of a “shared  
15 source group” on a Lifestyle player in the “shared source group.” To the contrary, as I explained  
16 above, the evidence I have reviewed shows the Multi-Room Interface of the Bose Lifestyle 50  
17 System was exclusively responsible for the “shared source group” functionality, and the Lifestyle  
18 players never changed into a different “mode” for group playback or even had any awareness of  
19 whether or not they were part of a “shared source group.” *See, e.g.,* BOSE\_SUB-0000001-55 at 6  
20 (“The Bose Multi-Room Interface, with four independent audio outputs that allow you to enjoy  
21 Bose sound throughout your home.”), 12 (illustrating a Bose Lifestyle 50 System configuration  
22 with a CD player and an Acoustimass module connected the Multi-Room Interface), 17  
23 (illustrating various audio sources connected to Multi-Room Interface via audio input cables), 19  
24 (“When batteries are first installed in the music center; it sets up a radio-frequency link with the  
25 closest multi-room interface.... If the music center continuously displays "NO RESPONSE," you  
26 need to try to establish its link with the multi-room interface again.”), 42 (Figure 47 showing  
27 “AUDIO OUTPUT” jacks for each room), 44-45 (explaining how to use ROOM and HOUSE  
28 buttons of the Personal Music Center to set up an audio source for one or more rooms connected

1 to the Multi-Room Interface), 45 (“To add a new music center to your system, follow the setup  
2 instructions on page 17. Be sure to install the batteries and turn it on for the first time close to the  
3 multi-room interface to allow the new music center to set up a radio frequency link with your  
4 system. If the multi-room interface is not plugged in or the music center is out of range, the display  
5 indicates NO RESPONSE.”). In view of this, it is my opinion that the Personal Music Center (and  
6 any other alleged “computing device” that Dr. Schonfeld may be relying on such as the  
7 combination of the Personal Music Center and the Multi-Room Interface) would not be configured  
8 to cause a Lifestyle player in a “shared source group” to store the “shared source group.”

9 1528. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that intervening  
10 claim 3 and Asserted Claim 4 of the '966 Patent are both rendered obvious by the Bose Lifestyle  
11 50 System. *See* Schonfeld Op. Report at ¶¶ 1047-1048. However, I find Dr. Schonfeld’s opinion  
12 regarding the Bose Lifestyle 50 System and claims 3-4 of the '966 Patent to be flawed for several  
13 reasons.

14 1529. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
15 Lifestyle 50 System and claims 3-4 of the '966 Patent is shown in the screenshots below from Dr.  
16 Schonfeld’s Opening Report:

17  
18 **28. Claim 3 is Obvious Based On Bose Lifestyle in view of General**  
19 **knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or**  
20 **Millington.**

21 (i) *3. The computing device of claim 1, wherein causing storage of the*  
22 *first zone scene comprises causing storage of the first zone scene at*  
23 *a location other than the computing device, and wherein causing*  
24 *storage of the second zone scene comprises causing storage of the*  
25 *second zone scene at the location other than the computing device.*

26 1047. *See* '966 claim 1 *supra*.  
27  
28

**29. Claim 4 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *4. The computing device of claim 3, wherein the location other than the computing device comprises a zone player of the first predefined grouping of zone players.*

1048. *See '966 claim 3 supra.*

1530. This shows that Dr. Schonfeld is primarily relying on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of Sonos's 2005 system in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 4 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 4 of the '966 Patent.<sup>68</sup>

1531. With that said, as I have discussed above in Section XV.C.1 as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of the

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<sup>68</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.



1 Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
2 number of flaws, many of which are applicable to Asserted Claim 4 of the '966 Patent as well –  
3 including that his analysis is premised on both an incorrect interpretation of what is required to  
4 qualify as a “zone scene” and an inaccurate and misleading characterization of the Bose Lifestyle  
5 50 System functionality and the evidence related thereto.

6 1532. Thus, nothing in Dr. Schonfeld’s Opening Report alters my opinion that the  
7 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
8 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
9 in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim  
10 4 of the '966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle  
11 50 System.

12 **4. Asserted Claim 6 is Not Rendered Obvious Based on the Bose Lifestyle**  
13 **50 System**

14 1533. Asserted Claim 6 of the '966 Patent depends from Asserted Claim 1 of the '966  
15 Patent and requires the following:

16 [6.0] The computing device of claim 1, [6.1] wherein the first predefined grouping of  
17 zone players does not include the third zone player, and [6.2] wherein the second  
predefined grouping of zone players does not include the second zone player.

18 1534. Thus, Asserted Claim 6 of the '966 Patent requires the claimed “computing device”  
19 to be programmed with functionality for creating two overlapping “zone scenes” where each “zone  
20 scene” includes at least one “zone player” that is not included in the other “zone scene.”

21 1535. In my opinion, Asserted Claim 6 of the '966 Patent is not rendered obvious based  
22 on the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
23 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
24 Dr. Schonfeld.

25 1536. Indeed, because Asserted Claim 6 of the '966 Patent depends from Asserted Claim  
26 1 of the '966 Patent, it is my opinion that Asserted Claim 6 of the '966 Patent is not rendered  
27 obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the  
28 Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references

1 identified by Dr. Schonfeld for at least the same reasons discussed above in connection with  
2 Asserted Claim 1 of the '966 Patent.

3 1537. Moreover, it is my opinion that the additional limitations of Asserted Claim 6 of  
4 the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
5 Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
6 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
7 Schonfeld. For example, as discussed above, a “shared source group” in the Bose Lifestyle 50  
8 System is not a “zone scene,” and the Personal Music Center (and any other alleged “computing  
9 device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center  
10 and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any functionality  
11 capability for creating a “zone scene” – let alone the functional capability for creating two  
12 different, overlapping “zone scenes” – nor would it have been obvious to add this functionality to  
13 Sonos’s 2005 system. And for similar reasons, the Personal Music Center (and any other alleged  
14 “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal  
15 Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any  
16 functionality capability for creating two overlapping “zone scenes” where each “zone scene”  
17 includes at least one “zone player” that is not included in the other “zone scene,” nor would it have  
18 been obvious to add this functionality to the Bose Lifestyle 50 System.

19 1538. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
20 Claim 6 of the '966 Patent rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
21 Report at ¶ 1049. However, I find Dr. Schonfeld’s opinion regarding the Bose Lifestyle 50 System  
22 and Asserted Claim 6 of the '966 Patent to be flawed for several reasons.

23 1539. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
24 Lifestyle 50 System and Asserted Claim 6 of the '966 Patent is shown in the screenshot below  
25 from Dr. Schonfeld’s Opening Report:  
26  
27  
28

**30. Claim 6 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *6. The computing device of claim 1, wherein the first predefined grouping of zone players does not include the third zone player; and wherein the second predefined grouping of zone players does not include the second zone player.*

1049. *See '966 claim 1 supra.* As discussed *supra*, claim 1 is disclosed or rendered obvious at least through the disclosure of non-overlapping zone scenes in the prior art.

1540. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 6 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions regarding Asserted Claim 6 of the '966 Patent.<sup>69</sup>

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<sup>69</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies in his Opening Report, I expressly reserve my right to respond.

1541. With that said, as I have discussed above in Section XV.C.1 as well as in my '885 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of the Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a number of flaws, many of which are applicable to Asserted Claim 6 of the '966 Patent as well – including that his analysis is premised on both an incorrect interpretation of what is required to qualify as a “zone scene” and an inaccurate and misleading characterization of the Bose Lifestyle 50 System functionality and the evidence related thereto.

1542. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim 6 of the '966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle 50 System.

**5. Asserted Claim 8 is Not Rendered Obvious Based on the Bose Lifestyle 50 System**

1543. Asserted Claim 8 of the '966 Patent depends from Asserted Claim 1 of the '966 Patent and requires the following:

[8.0] The computing device of claim 1, [8.1] wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device, [8.2] wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface, and [8.3] wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface.

1544. Thus, Asserted Claim 8 of the '966 Patent requires the claimed “computing device” to be programmed with the functional capability to receive “requests” for creating and invoking “zone scenes” that take the form of “one or more inputs” received “via a user interface.”

1545. In my opinion, Asserted Claim 8 of the '966 Patent is not rendered obvious based on the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr. Schonfeld.

1           1546. Indeed, because Asserted Claim 8 of the '966 Patent depends from Asserted Claim  
2   1 of the '966 Patent, it is my opinion that Asserted Claim 8 of the '966 Patent is not rendered  
3   obvious by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the  
4   Sonos Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references  
5   identified by Dr. Schonfeld for at least the same reasons discussed above in connection with  
6   Asserted Claim 1 of the '966 Patent.

7           1547. Moreover, it is my opinion that the additional limitations of Asserted Claim 8 of  
8   the '966 Patent are neither disclosed by the Bose Lifestyle 50 System nor rendered obvious by the  
9   Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
10   Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
11   Schonfeld for similar reasons to those discussed above in connection with Asserted Claim 1 of the  
12   '966 Patent. For example, as discussed above, a “shared source group” in the Bose Lifestyle 50  
13   System is not a “zone scene,” and the Personal Music Center (and any other alleged “computing  
14   device” that Dr. Schonfeld may be relying on such as the combination of the Personal Music Center  
15   and the Multi-Room Interface) in the Bose Lifestyle 50 System did not have any functionality  
16   capability for receiving requests to create or invoke a “zone scene” – let alone the functional  
17   capability for receiving requests to create two different, overlapping “zone scenes” and then  
18   receiving a request to invoke one of the “zone scenes” – nor would it have been obvious to add  
19   this functionality to the Bose Lifestyle 50 System. And for similar reasons, the controllers in the  
20   Bose Lifestyle 50 System did not have any functionality capability for receiving requests to create  
21   or invoke “zone scenes” that take the form of “one or more inputs” received “via a user interface,”  
22   nor would it have been obvious to add this functionality to the Bose Lifestyle 50 System.

23           1548. Despite these clear deficiencies, Dr. Schonfeld nevertheless opines that Asserted  
24   Claim 8 of the '966 Patent rendered obvious by the Bose Lifestyle 50 System. *See* Schonfeld Op.  
25   Report at ¶ 1050. However, I find Dr. Schonfeld’s opinion regarding the Bose Lifestyle 50 System  
26   and Asserted Claim 8 of the '966 Patent to be flawed for several reasons.

27           1549. As an initial matter, the entirety of Dr. Schonfeld’s discussion regarding the Bose  
28   Lifestyle 50 System and Asserted Claim 8 of the '966 Patent is shown in the screenshot below

from Dr. Schonfeld's Opening Report:

**31. Claim 8 Is Obvious Based On Bose Lifestyle in view of General knowledge of a POSITA, the Sonos Forums, Nourse, Rajapakse or Millington.**

- (i) *8. The computing device of claim 1, wherein receiving the first request comprises receiving a first set of one or more inputs via a user interface of the computing device, wherein receiving the second request comprises receiving a second set of one or more inputs via the user interface, and wherein receiving the third request comprises receiving a third set of one or more inputs via the user interface.*

1050. *See '966 claim 1 supra.*

1550. This shows that Dr. Schonfeld is relying exclusively on his discussion of Asserted Claim 1 of his '966 Patent, but as explained above, Dr. Schonfeld has not set forth any analysis for Asserted Claim 1 of his '966 Patent; instead, Dr. Schonfeld relies on his prior discussion of the Bose Lifestyle 50 System in the context of certain claim limitations of the '885 Patent. However, the Asserted Claims of the '966 Patent are directed to a different type of device than Asserted Claim 1 of the '885 Patent (a "computing device" configured to "serv[e] as a controller" as opposed to a "zone player"), the Asserted Claims of the '966 Patent use different claim language than Asserted Claim 1 of the '885 Patent, and Dr. Schonfeld fails to provide any further explanation as to how his prior discussion of the Bose Lifestyle 50 System in the context of the claim limitations of Asserted Claim 1 of the '885 Patent applies to the Asserted Claims of the '966 Patent. For these reasons, I disagree that the Dr. Schonfeld's discussion of Asserted Claim 8 of the '966 Patent amounts to a detailed and complete statement of all opinions to be expressed and the basis and reasons therefor, which I understand to be the governing standard for expert reports, and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his opinions



1 regarding Asserted Claim 8 of the '966 Patent.<sup>70</sup>

2 1551. With that said, as I have discussed above in Section XV.C.1 as well as in my '885  
3 Rebuttal Report regarding Asserted Claim 1 of the '885 Patent, Dr. Schonfeld's analysis of the  
4 Bose Lifestyle 50 System in the context of Asserted Claim 1 of the '885 Patent suffers from a  
5 number of flaws, many of which are applicable to Asserted Claim 8 of the '966 Patent as well –  
6 including that his analysis is premised on both an incorrect interpretation of what is required to  
7 qualify as a “zone scene” and an inaccurate and misleading characterization of the Bose Lifestyle  
8 50 System functionality and the evidence related thereto.

9 1552. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the  
10 Personal Music Center (and any other alleged “computing device” that Dr. Schonfeld may be  
11 relying on such as the combination of the Personal Music Center and the Multi-Room Interface)  
12 in the Bose Lifestyle 50 System did not have the functional capability required by Asserted Claim  
13 8 of the '966 Patent, nor would it have been obvious to add this functionality to the Bose Lifestyle  
14 50 System.

15 **6. Asserted Claim 9 is Not Rendered Obvious Based on the Bose Lifestyle**  
16 **50 System**

17 1553. For the same reasons already discussed above in connection with Asserted Claim 1  
18 of the '966 Patent, in my opinion, Asserted Claim 9 of the '966 Patent is not rendered obvious by  
19 the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos Forums,  
20 Nourse, Rajapakse, or Millington, or any of the other secondary references identified by Dr.  
21 Schonfeld.

22 **7. Asserted Claim 10 is Not Rendered Obvious Based on the Bose Lifestyle**  
23 **50 System**

24 1554. For the same reasons already discussed above in connection with Asserted Claim 2  
25 of the '966 Patent, in my opinion, Asserted Claim 10 of the '966 Patent is not rendered obvious  
26 by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos

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27 <sup>70</sup> To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies  
28 in his Opening Report, I expressly reserve my right to respond.

1 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
2 Dr. Schonfeld.

3 **8. Asserted Claim 12 is Not Rendered Obvious Based on the Bose Lifestyle**  
4 **50 System**

5 1555. For the same reasons already discussed above in connection with Asserted Claim 4  
6 of the '966 Patent, in my opinion, Asserted Claim 12 of the '966 Patent is not rendered obvious  
7 by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
8 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
9 Dr. Schonfeld.

10 **9. Asserted Claim 14 is Not Rendered Obvious Based on the Bose Lifestyle**  
11 **50 System**

12 1556. For the same reasons already discussed above in connection with Asserted Claim 6  
13 of the '966 Patent, in my opinion, Asserted Claim 14 of the '966 Patent is not rendered obvious  
14 by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
15 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
16 Dr. Schonfeld.

17 **10. Asserted Claim 16 is Not Rendered Obvious Based on the Bose Lifestyle**  
18 **50 System**

19 1557. For the same reasons already discussed above in connection with Asserted Claim 8  
20 of the '966 Patent, in my opinion, Asserted Claim 16 of the '966 Patent is not rendered obvious  
21 by the Bose Lifestyle 50 System in view of the general knowledge of a POSITA, the Sonos  
22 Forums, Nourse, Rajapakse, or Millington, or any of the other secondary references identified by  
23 Dr. Schonfeld.

24 **D. Obviousness Type Double Patenting Over U.S. Patent No. 9,141,645**

25 1558. In his Opening Report, Dr. Schonfeld opines that each Asserted Claim of the '966  
26 Patent is obvious based on obviousness-type double patenting over claim 1 of Sonos's '645 patent.  
27 I disagree with Dr. Schonfeld's opinion, which is flawed for the many reasons I have outlined  
28 below.

1 the '966 Patent. The new functionality is also not commercially acceptable for the same reasons  
2 as already discussed.

3 To the extent Dr. Schonfeld expands on his opinions concerning NIA 1 or the new software  
4 update, I reserve my right to respond

5 **XVIII. DEMONSTRATIVES**


6 1656. To help assist in my testimony at trial, I have prepared a number of demonstratives  
7 that are attached hereto as **Exhibit 5**. These demonstratives are exemplary and I reserve the right  
8 to create additional demonstratives and/or to modify the demonstratives in **Exhibit 5** based on the  
9 material in this report. For example, I reserve the right to create additional demonstratives and/or  
10 to modify the demonstratives in **Exhibit 5** based on the images I included in this report as well as  
11 the evidence cited in this report. I also incorporate by reference the demonstratives I prepared for  
12 my opening report.

13 1657. I have also reviewed Sonos's Technology Tutorial that provides an overview of the  
14 '885 and '966 Patents, which I understand was submitted to the court in February 2022. I  
15 incorporate by reference herein Sonos's Technology Tutorial and expressly reserve the right to use  
16 the Technology Tutorial in whole or in part as a demonstrative to assist in my testimony.  
17 Additionally, I have attached a pdf version of Sonos's Technology Tutorial hereto as **Exhibit 6**  
18 and expressly reserve the right to use the images contained therein as demonstratives to assist in  
19 my testimony.

20 **XIX. RESERVATION OF RIGHT**

21 1658. I reserve the right to further expound on my rebuttal opinions, including the validity  
22 of the Asserted Claims of the '966 Patent, in subsequent declarations, reports, and/or at trial.

23  
24  
25 Dated: January 13, 2023

  
By: \_\_\_\_\_  
Kevin C. Almeroth